

REQUEST FOR PROPOSALS FOR

Truck Parking Management System

ISSUING OFFICE

Pennsylvania Turnpike Commission

Contracts Administration Department

On behalf of the

Traffic Engineering and Operations Department

RFP NUMBER

19-10480-8386

DATE OF ISSUANCE

August 14, 2019

**REQUEST FOR PROPOSALS FOR
RFP NUMBER 19-10480-8386**

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**Appendix O is not included in the advertised RFP package. Appendix O is available to interested proposers by submitting a written request on company letterhead to the Contracts Administration Department (scanned letter submitted via email is acceptable). Please see Section I-11 and/or I-13 for contact information to submit for Appendix O.*

CALENDAR OF EVENTS

RFP# 19-10480-8386

The Commission reserves the right to make changes or alterations to this schedule as the Commission determines is in its best interest.

Activity	Date	Time
Request for Proposals Issued	August 14, 2019	N/A
Deadline for Proposers to Submit Questions via email to RFP-Q@paturndpike.com	September 4, 2019	2:00 PM
Answers to Proposers questions posted to the Commission website at https://www.paturndpike.com/Procurement/Bidlist.aspx?RTYPE=O (<i>Estimate Only</i>)	September 9, 2019	N/A
Due Date for Proposals	September 24, 2019	2:00 PM
Oral Clarifications/Presentations (<i>If necessary</i>)	TBD	TBD
Anticipated Notice to Proceed (<i>Estimate Only</i>)	July, 2020	N/A

PART I

GENERAL INFORMATION FOR PROPOSERS

I-1. Purpose. This request for proposals (RFP) provides interested Proposers with sufficient information to enable them to prepare and submit proposals for consideration by the Pennsylvania Turnpike Commission (Commission or PTC) to satisfy a need for the design, furnishing and installation of a completely functional Truck Parking Management System (TPMS) which includes a SaaS (Software as a Service) component, digital/static hybrid message sign(s), truck parking detection equipment, Closed Circuit Television Systems (CCTV) and power and communications connections for all devices.

Work items included, but are not limited to:

- Design, procure, install, integrate, test, and train for the operation of truck parking detection, CCTV cameras, and related power and communication connections and equipment at the Commission service plazas listed in the table below. The successful proposer will be responsible to maintain the TPMS as necessary to ensure that all contract performance requirements are maintained for the entirety of the contract performance period, beginning upon system acceptance. The Commission reserves the right to increase or decrease the number of Commission service plazas/truck parking facilities included in the original project scope as funding allows.

PTC Mainline Service Plazas	PTC Northeast Extension Service Plazas
Sideling Hill Service Plaza (MP T172.3 EB/WB)	Allentown Service Plaza (MP A55.9 NB/SB)
Blue Mountain (MP T202.5 WB)	Hickory Run Service Plaza (MP A86.1 NB/SB)
Highspire Service Plaza (MP T249.7 EB)	
Lawn Service Plaza (MP T258.8 WB)	
Bowmansville Service Plaza (MP T289.9 EB)	
Peter J. Camiel Service Plaza (MP T304.8WB)	
Valley Forge Service Plaza (MP T324.6 EB)	
King of Prussia Service Plaza (MP T328.4 WB)	

- Design, procure, install, configure, integrate, test, train and maintain for the operation of a SaaS Truck Parking Management software to be monitored and operated by Commission personnel from the existing Traffic Operations Center (TOC) located in Highspire, PA. The TPMS will interface with the Commission’s Advanced Transportation Management System (ATMS) to facilitate control of existing Dynamic Message Signs (DMS) and digital/static hybrid message signs installed under this contract. The successful proposer will be responsible for all costs associated with proving the SaaS and provide support for the cloud hosted TPMS and ATMS interface throughout deployment and for the entirety of the contract performance period, beginning upon system acceptance.
- System Component Summary and Operation and Maintenance Responsibilities – The Commission will operate all system components after System Acceptance. The table below outlines the maintenance responsibilities for the different subsystem components through the life of the project.

System Component	Maintenance Responsibility
Detection Subsystem	Contractor – Through Deployment and Performance Period
CCTV Subsystem	Contractor – Through Deployment; PTC – After Acceptance
TPMS (SaaS) and ATMS Interface	Contractor – Through Deployment and Performance Period
Digital/Static Hybrid Message Sign	Contractor – Through Deployment; PTC – After Acceptance

- **Environmental Clearances.** Environmental clearance for a Categorical Exclusion 1a (CE 1a) evaluation was obtained for all PTC service plazas and all activities within the site footprint defined as the Commission Right-of-Way that envelopes each subject service plaza. If the proposer requests that required system infrastructure be moved outside of the footprint, the Proposer will be responsible for conducting the environmental studies, preparing and obtaining environmental clearance for a re-evaluation of the approved CE 1a and obtaining all necessary permits prior to proceeding to construction. The CE 1a evaluation for this project is provided as Appendix T – Environmental Clearances.

I-2. Issuing Office. This RFP is issued for the Commission by the Contracts Administration Department on behalf of the Traffic Engineering and Operations Department.

I-3. Scope. This RFP contains instructions governing the proposals to be submitted and the material to be included therein; a description of the service to be provided; requirements which must be met to be eligible for consideration; general evaluation criteria; and other requirements to be met by each proposal.

I-4. Problem Statement. To combat a statewide and national shortage of truck parking availability, the Commission is deploying a Truck Parking Management System. The system will support the trucking industry by providing near real-time truck parking availability data to the truck drivers via existing DMS along the Turnpike roadways as well as data made available to drivers via existing traveler information outlets and third-party truck parking information systems. Additional detail is provided in Part IV of this RFP.

I-5. Type of Contract. The Commission intends to award one contract as a result of this RFP. It is proposed that if a contract is entered into as a result of this RFP, **it will be a deliverables-based unit price contract, and a monthly fee for maintenance and support services.** The Commission may in its sole discretion undertake negotiations with Proposers whose proposals as to price and other factors show them to be qualified, responsible, responsive and capable of performing the work. A sample Contractual Agreement is provided in **Appendix A.**

I-6. Contractor Integrity Provisions. Contractor Integrity Provisions will apply to this contract upon award and the awarded vendor may be required to complete a Background Qualifications Questionnaire prior to entering into an Agreement with the Commission and attend annual ethics training provided by the Commission. Proposers can find the Integrity Provisions and other related documents on the Commissions website at www.paturmpike.com (Doing Business, General Information, Integrity Provisions).

Include full disclosure of any potential conflict with the State Adverse Interest Act, 71 P.S. § 776.3, for a State Advisor or State Consultant by the prime or any subconsultant. If there is no adverse interest, you shall include the following statement: "I have reviewed the State Adverse Interest Act and determined that there is no adverse interest for anyone on this Agreement team." This information should be included in your transmittal letter/cover page or executive summary.

I-7. Rejection of Proposals. The Commission reserves the right to reject any and all proposals received as a result of this request, or to negotiate separately with competing Proposers.

I-8. Subcontracting. Any use of subcontractors by a Proposer must be identified in the proposal. During the contract period use of any subcontractors by the selected Proposer, which were not previously identified in the proposal, must be approved in advance in writing by the Commission.

If a Joint Venture responds to this RFP, the Commission will not accept separate proposals from joint venture constituents. A firm will not be permitted to submit a proposal on more than one (1) joint venture for the same RFP. Also, a firm that responds to this RFP as a prime may not be included as a designated subconsultant to another firm that responds to the same RFP. Multiple responses under any of the foregoing situations will cause the rejection of all responses of the firm or firms involved. This does not preclude a firm from being set forth as a designated subconsultant to more than one prime consultant responding to the RFP.

I-9. Incurring Costs. The Commission is not liable for any costs the Proposer incurs in preparation and submission of its proposal, in participating in the RFP process or in anticipation of award of contract.

I-10. Procurement Schedule of Events. The current Schedule for Key Procurement Dates for this procurement process leading to an award of the Contract is provided in the Calendar of Events, page 1 of this RFP. The Commission reserves the right to make changes or alterations to this schedule as the Commission determines is in its best interest. All changes to these dates and/ or times up to and including the due date for Proposals will be issued as an addendum to this RFP and will become part of this RFP and will be posted to the Commission's website at <https://www.paturnpike.com/procurement/Bidlist.aspx?rtype=o>.

Unless otherwise notified in writing by the Commission, the dates indicated below for submission of items or for other required actions on the part of a Proposer shall constitute absolute deadlines for those activities and failure to fully comply by the time and date stated shall cause a Proposer to be disqualified. All times stated are in Harrisburg, PA local time and are subject to change.

I.11. Questions and Answers. There will be no pre-proposal conference for this RFP. No negotiations, decisions or actions shall be initiated or executed by a Proposer as a result of any oral discussions with any Commission member, employee, consultant/contractor. Written questions may be submitted to clarify any points in the RFP which may not have been clearly understood. Written questions shall be submitted by email to RFP-Q@paturnpike.com with **RFP 19-10480-8386** in the Subject Line to be received no later than the date and time provided on the Calendar of Events. All questions and written answers will be issued as an addendum to and become part of this RFP and will be posted to the Commission's website at (<http://www.paturnpike.com/procurement/Bidlist.aspx?rtype=o>), approximately on or before the date provided on the Calendar of Events and only if necessary. Proposers shall use the form provided in **Appendix B** to submit the questions.

I-12. Addenda to the RFP. If it becomes necessary to revise any part of this RFP before the proposal response date, addenda will be posted to the Commission's website under the original RFP document (<http://www.paturnpike.com/procurement/Bidlist.aspx?rtype=o>). It is the responsibility of the Proposer to periodically check the website for any new information or addenda to the RFP.

The Commission may revise a published advertisement. If the Commission revises published advertisement less than ten days before the RFP due date, the due date will be extended to maintain the minimum ten-day advertisement duration if the revision alters the project scope or selection criteria. Firms

are responsible to monitor advertisements/addenda to ensure the submitted proposal complies with any changes in the published advertisement.

I-13. Response. To be considered, proposals must be delivered to the Pennsylvania Turnpike Commission's Contracts Administration Department, Attention: Ms. Wanda Metzger, on or before the date and time provided on the Calendar of Events. The Commission will **not** accept proposals via email or facsimile transmission.

Overnight Delivery Address:

Contracts Administration Department
Attn: Wanda Metzger
PA Turnpike Commission
700 South Eisenhower Blvd.
Middletown, PA 17057
Phone: (717) 831-7429

US Mail Delivery Address:

Contracts Administration Department
Attn: Wanda Metzger
PA Turnpike Commission
P.O. Box 67676
Harrisburg, PA 17106

Please note that use of U.S. Mail, FedEx, UPS, or other delivery method, does not guarantee delivery to the Contracts Administration Department by the above listed time for submission. Proposers mailing proposals should allow sufficient delivery time to ensure timely receipt of their proposals. If the Commission office location to which proposals are to be delivered is closed on the proposal response date, due to inclement weather, natural disaster, or any other cause, the deadline for submission shall be automatically extended until the next Commission business day on which the office is open. Unless the Proposers are otherwise notified by the Commission, the time for submission of proposals shall remain the same.

I-14. Proposals. To be considered, Proposers should submit a complete response to this RFP, using the format provided in PART II. Each proposal should be submitted in five (5) hard copies of the Technical Submittal, five (5) hard copies of the Diverse Business (DB) participation submittal, and five (5) hard copies of the Cost Submittal. In addition to the hard copies of the proposal, two **complete and exact copies** of the Technical, Cost and DB submittals, along with all requested documents on CD-ROM or Flash Drive in Microsoft Office or Microsoft Office-compatible format. The electronic copy must be a mirror image of the hard copy. Proposer should ensure that there is no costing information in the technical submittal. The CD or Flash drive should clearly identify the Proposer and include the name and version number of the virus scanning software that was used to scan the CD or Flash drive before it was submitted. The Proposer shall present the proposal to the Contracts Administration Department only. No other distribution of proposals will be made by the Proposer. Each proposal page should be numbered for ease of reference.

An official authorized to bind the Proposer to its Proposal must sign the proposal. If the official signs the Proposal Cover Sheet (**Appendix C** to this RFP) and the Proposal Cover Sheet is attached to the proposal, the requirement will be met. For this RFP, the proposal must remain valid for at least **180** calendar days. Moreover, the contents of the proposal of the selected Proposer will become contractual obligations if a contract is entered into.

Each and every Proposer submitting a proposal specifically waives any right to withdraw or modify it, except as hereinafter provided. Proposals may be withdrawn by written or fax notice (fax number (717)

986-8714) received at the Commission's address for proposal delivery prior to the exact hour and date specified for proposal receipt.

However, if the Proposer chooses to attempt to provide such written notice by fax transmission, the Commission shall not be responsible or liable for errors in fax transmission. A proposal may also be withdrawn in person by a Proposer or its authorized representative, provided his/her identity is made known and he/she signs a receipt for the proposal, but only if the withdrawal is made prior to the exact hour and date set for proposal receipt. A proposal may only be modified by the submission of a new sealed proposal or submission of a sealed modification which complies with the requirements of this solicitation.

I-15. Economy of Preparation. Proposals should be prepared simply and economically, providing a straightforward, concise description of the Proposer's ability to meet the requirements of the RFP. The Technical Proposal shall be limited to 30 pages (**Parts II-1 to II-10**), any Proposer provided appendices to the Technical Proposal shall be limited to ten (10) pages, and key staff résumés shall be a maximum of two (2) pages each – all using 12 font size or larger. Proposal Cover Sheet, Résumés, Key Staff Commitment Letters, Financial Capabilities supporting documentation (**Part II-9**), ITS Equipment Submittals (**Part II-10**), and all required Appendices required in the submission (**Appendix D – Lobbying Certification Form**) shall not count against the proposal or appendix page limits. All Proposal documents shall be on standard Letter size (8-1/2" by 11") sheets of paper, each printed side counting as one (1) page). Tabloid (11"x17") sheets are allowed for graphics, charts, tables, etc. and shall count as two (2) pages per printed side. Tabloid sheets shall be folded neatly into the document.

I-16. Discussions for Clarification. Proposers who submit proposals may be required to make an oral or written clarification of their proposals to the Issuing Office through the Contract Administration Department to ensure thorough mutual understanding and Proposer responsiveness to the solicitation requirements. The Issuing Office through the Contract Administration Department will initiate requests for clarification.

I-17. Best and Final Offers. The Issuing Office reserves the right to conduct discussions with Proposers for the purpose of obtaining "best and final offers." To obtain best and final offers from Proposers, the Issuing Office may do one or more of the following: a) enter into pre-selection negotiations; b) schedule oral presentations; and c) request revised proposals. The Issuing Office will limit any discussions to responsible Proposers whose proposals the Issuing Office has determined to be reasonably susceptible of being selected for award.

I-18. Prime Proposer Responsibilities. The selected Proposer will be required to assume responsibility for all services offered in its proposal whether or not it produces them. Further, the Commission will consider the selected Proposer to be the sole point of contact with regard to contractual matters.

I-19. Proposal Contents. Proposals will be held in confidence and will not be revealed or discussed with competitors, unless disclosure is required to be made (i) under the provisions of any Commonwealth or United States statute or regulation; or (ii) by rule or order of any court of competent jurisdiction. All material submitted with the proposal becomes the property of the Pennsylvania Turnpike Commission and may be returned only at the Commission's option. Proposals submitted to the Commission may be reviewed and evaluated by any person other than competing Proposers at the discretion of the

Commission. The Commission has the right to use any or all ideas presented in any proposal. Selection or rejection of the proposal does not affect this right.

In accordance with the Pennsylvania Right-to-Know Law (RTKL), 65 P.S. § 67.707 (Production of Certain Records), Proposers shall identify any and all portions of their Proposal that contains confidential proprietary information or is protected by a trade secret. Proposals shall include a written statement signed by a representative of the company/firm identifying the specific portion(s) of the Proposal that contains the trade secret or confidential proprietary information.

Proposers should note that “trade secrets” and “confidential proprietary information” are exempt from access under Section 708(b)(11) of the RTKL. Section 102 defines both “trade secrets” and “confidential proprietary information” as follows:

Confidential proprietary information: Commercial or financial information received by an agency: (1) which is privileged or confidential; **and** (2) the disclosure of which would cause substantial harm to the competitive position of the person that submitted the information.

Trade secret: Information, including a formula, drawing, pattern, compilation, including a customer list, program, device, method, technique or process that: (1) derives independent economic value, actual or potential, from not being generally known to and not being readily ascertainable by proper means by other persons who can obtain economic value from its disclosure or use; **and** (2) is the subject of efforts that are reasonable under the circumstances to maintain its secrecy. The term includes data processing software by an agency under a licensing agreement prohibiting disclosure.

65 P.S. §67.102 (emphasis added).

The Office of Open Records has determined that a third party must establish a trade secret based upon factors established by the appellate courts, which include the following:

- the extent to which the information is known outside of his business;
- the extent to which the information is known by employees and others in the business;
- the extent of measures taken to guard the secrecy of the information;
- the value of the information to his business and to competitors;
- the amount of effort or money expended in developing the information; and
- the ease of difficulty with which the information could be properly acquired or duplicated by others.

See Crum v. Bridgestone/Firestone North Amer. Tire., 907 A.2d 578, 585 (Pa. Super. 2006).

The Office of Open Records also notes that with regard to “confidential proprietary information the standard is equally high and may only be established when the party asserting protection shows that the information at issue is either ‘commercial’ or ‘financial’ and is privileged or confidential, and the disclosure **would** cause substantial competitive harm.” (emphasis in original).

For more information regarding the RTKL, visit the Office of Open Records’ website at www.openrecords.state.pa.us.

I-20. Debriefing Conferences. Proposers whose proposals are not selected will be notified of the name of the selected Proposer and given the opportunity to be debriefed, at the Proposer’s request. The Issuing

Office will schedule the time and location of the debriefing. The Proposer will not be compared with other Proposers.

I-21. News Releases. Proposers shall not issue news releases, internet postings, advertisements or any other public communications pertaining to this RFP without prior written approval of the Issuing Office, and then only in coordination with the Issuing Office.

I-22. Commission Participation. Unless specifically noted in this section, Proposers must provide all services to complete the identified work. The Commission will provide a Commission Project Manager that will coordinate project meetings with the Selected Proposer, facilitate submittal reviews by Commission and consultant staff, and will act as the single point of contact for all project correspondence. Commission support staff will be provided and utilized in a timely manner, as required.

I-23. Cost Submittal. The cost submittal shall be placed in a separately sealed envelope within the sealed proposal and kept separate from the technical submittal.

I-24. Term of Contract. The term of the contract will commence on the Effective Date (as defined below) and will end three (3) years after that date with option to extend for an additional 3 years incrementally in one or more steps. The Commission shall fix the Effective Date after the contract has been fully executed by the Contractor and by the Commission and all approvals required by Commission contracting procedures have been obtained.

I-25. Proposer's Representations and Authorizations. Each Proposer by submitting its proposal understands, represents, and acknowledges that:

- a. All information provided by, and representations made by, the Proposer in the proposal are material and important and will be relied upon by the Issuing Office in awarding the contract(s). Any misstatement, omission or misrepresentation shall be treated as fraudulent concealment from the Issuing Office of the true facts relating to the submission of this proposal. A misrepresentation shall be punishable under 18 Pa. C.S. 4904.
- b. The price(s) and amount of this proposal have been arrived at independently and without consultation, communication or agreement with any other Proposer or potential Proposer.
- c. Neither the price(s) nor the amount of the proposal, and neither the approximate price(s) nor the approximate amount of this proposal, have been disclosed to any other firm or person who is a Proposer or potential Proposer, and they will not be disclosed on or before the proposal submission deadline specified in the response section of this RFP.
- d. No attempt has been made or will be made to induce any firm or person to refrain from submitting a proposal on this contract, or to submit a proposal higher than this proposal, or to submit any intentionally high or noncompetitive proposal or other form of complementary proposal.
- e. The proposal is made in good faith and not pursuant to any agreement or discussion with, or inducement from, any firm or person to submit a complementary or other noncompetitive proposal.

- f. To the best knowledge of the person signing the proposal for the Proposer, the Proposer, its affiliates, subsidiaries, officers, directors, and employees are not currently under investigation by any governmental agency and have not in the last four (4) years been convicted or found liable for any act prohibited by State or Federal law in any jurisdiction, involving conspiracy or collusion with respect to bidding or proposing on any public contract, except as disclosed by the Proposer in its proposal.
- g. To the best of the knowledge of the person signing the proposal for the Proposer and except as otherwise disclosed by the Proposer in its proposal, the Proposer has no outstanding, delinquent obligations to the Commonwealth including, but not limited to, any state tax liability not being contested on appeal or other obligation of the Proposer that is owed to the Commonwealth.
- h. The Proposer is not currently under suspension or debarment by the Commonwealth, or any other state, or the federal government, and if the Proposer cannot certify, then it shall submit along with the proposal a written explanation of why such certification cannot be made.
- i. The Proposer has not, under separate contract with the Issuing Office, made any recommendations to the Issuing Office concerning the need for the services described in the proposal or the specifications for the services described in the proposal.
- j. Each Proposer, by submitting its proposal, authorizes all Commonwealth agencies to release to the Commission information related to liabilities to the Commonwealth including, but not limited to, taxes, unemployment compensation, and workers' compensation liabilities.

I-26. Indemnification. The Proposer shall be responsible for, and shall indemnify, defend, and hold harmless the Commission and its Commissioners, officers, employees, and agents from any claim, liability, damages, losses, causes of action, and expenses, including reasonable attorneys' fees, arising from damage to life or bodily injury or real or tangible personal property caused by the negligence or other tortious acts, errors, and omissions of Proposer, its employees, or its subcontractors while engaged in performing the work of the Agreement or while present on the Commission's premises, and for breach of the Agreement regarding the use or disclosure of proprietary and confidential information where it is determined that Proposer is responsible for any use of such information not permitted by the Agreement. The indemnification obligation shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for Contractor or its subcontractors under Workers' Compensation Acts, Disability Benefits Acts, or other Employee Benefit Act.

I-27. Data/Information Security Breach Notification. "Breach" shall mean any successful unauthorized acquisition, access, use, or disclosure of Commission data that compromises the security or privacy of such data.

"Commission Data" means Commission provided information and Commission related information acquired as a result of the services provided to Commission under this Agreement.

Proposer shall report to the Commission any Breach affecting Commission Data. The notice to be provided to the Commission by Proposer shall be provided without unreasonable delay and no later than within 72 hours of Proposer's discovery of any Breach. A Breach shall be deemed to be discovered on the first day on which the Proposer knows or reasonably should have known of the Breach. The notice to be provided to the Commission by Proposer shall be made in writing to the Commission's Information Security Officer and shall include the following content: (i) the nature of the Breach; (2) the specific Commission Data affected by the Breach; (3) the steps the Proposer is taking to remediate the Breach; and (4) steps the Proposer is taking to mitigate future Breaches. Following notification of the Breach, Proposer shall cooperate with the Commission's investigation of the Breach and provide any other information regarding the Breach or the Commission Data affected which the Commission may reasonably request. Should notice to individuals whose information was part of Commission Data be required under any applicable data privacy law, including, but not limited to, individual state data breach notice laws or federal laws such as HIPAA and Gramm Leach Bliley Act, Proposer shall provide the Commission with copies of any template notification letters and draft regulatory correspondence for Commission's prior approval. Proposer shall provide any notifications required under the applicable data privacy laws on behalf of the Commission at the request of Commission. The Commission reserves the right to handle any notifications required and shall notify Proposer if the Commission will be handling the required notifications. Upon request, Proposer shall provide the Commission with its cyber-security policies and procedures. Proposer agrees to reimburse the Commission for any and all reasonable costs associated with the Commission's response to Proposer's Breach, including any fees associated with the Commission's investigation of Proposer's Breach, notification costs, and any reasonable offer of credit or identity monitoring product.

I-28. Security Requirements. Proposer will comply with the Security Requirements as described in **Appendix E – Commission Security Requirements.**

I-29. Lobbying Certification and Disclosure of Lobbying Activities. This project will be funded, in part, with federal monies. Public Law 101-121, Section 319, prohibits federal funds from being expended by the recipient or by any lower tier sub-recipients of a federal contract, grant, loan, or a cooperative agreement to pay any person for influencing, or attempting to influence a federal agency or Congress in connection with the awarding of any federal contract, the making of any federal grant or loan, or entering into any cooperative agreement. All parties who submit proposals in response to this RFP must sign the "Lobbying Certification Form" and, if applicable, complete the "Disclosure of Lobbying Activities" form attached in **Appendix D.**

I-30. Notification of Federal-Aid Requirements. This project includes fieldwork that is considered construction. As a federally-funded project, the Contractor must ensure that all activities that are considered construction comply with the federal-aid requirements outlined in Federal Highway Administration (FHWA) Document FHWA-1273. The requirements of FHWA-1273 are outlined in DSP8 of PennDOT Publication 408, which is included in **Appendix F** of the RFP. The Contractor must also ensure that all activities that are considered construction comply with the domestic material requirements ("Buy America"), which are outlined in the Code of Federal Regulations, Title 23, and Section 635.410, included in **Appendix G.** The Contractor must also ensure that all activities that are considered construction comply with the Davis-Bacon Wage Act requirements, which are included in **Appendix H.** The Provisions of Pennsylvania Wage Act of August 15, 1961, P.L. 987 as amended, together with the rates and regulations promulgated by secretary of Labor and Industry, will apply to this

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project. Wage rates for Fulton, Cumberland, Dauphin, Lebanon, Lancaster, Lehigh, Carbon, Chester, and Montgomery Counties are included in **Appendix H**.

I-31. Performance/Payment Bond. When awarded the contract, furnish a Performance Bond, with sufficient surety or sureties, in an amount equal to 100% of the contract price. Have the bond specify that the contracted work will be completed in a manner satisfactory to the Commission. Have the bond state that the Commission is not liable for any expenses incurred through the failure to complete the work as specified, nor liable for any damages growing out of the carelessness of the Contractor, the Contractor's employees, or subcontractors.

Also furnish a Payment Bond in the amount of 100% of the contract price. Have a corporate surety, legally authorized to transact business in the State and satisfactory to the Commission, execute both bonds. If the Commission decides the bond surety is unsatisfactory, promptly furnish any additional required security to protect the Commission's interests and the interests of all persons, firms, or corporations who/which have furnished material, provided equipment on rental, or supplied/performed labor or services on, or in connection with, the performance of the work for this contract.

Have participants in a joint venture submit a single Performance Bond and a single Payment bond, each signed by both the joint participants and by their surety. These bonds are to cover their joint and individual liability.

I-32. Insurance. Proposer will comply with the Insurance requirements as described in **Appendix I - Insurance Specification**.

I-33. Diverse Business (DB) Requirements. Proposer will comply with the DB Requirements as described in **Appendix J – Diverse Business (DB) Requirements**.

PART II

INFORMATION REQUIRED FROM PROPOSERS

Proposals must be submitted in the format, including heading descriptions, outlined below. To be considered, the proposal must respond to all requirements in this part of the RFP. Any other information thought to be relevant, but not applicable to the enumerated categories, should be provided as an appendix to the proposal. All cost data relating to this proposal and all Diverse Business cost data should be kept separate from and not included in the Technical Submittal. Each proposal shall consist of three separately sealed submittals:

1. Technical Submittal, which shall be a response to RFP **Part II, Sections II-1 through II-10;**
2. Diverse Business Participation Submittal, in response to RFP **Part II, Section II-11;** and
3. Cost Submittal, in response to RFP **Part II, Section II-12.**

The Commission reserves the right to request additional information which, in the Commission's opinion, is necessary to assure that the Proposer's competence, number of qualified employees, business organization, and financial resources are adequate to perform according to the RFP.

The Commission may make such investigations as deemed necessary to determine the ability of the Proposer to perform the work, and the Proposer shall furnish to the Issuing Office all such information and data for this purpose as requested by the Commission. The Commission reserves the right to reject any proposal if the evidence submitted by, or investigation of, such Proposer fails to satisfy the Commission that such Proposer is properly qualified to carry out the obligations of the agreement and to complete the work specified.

II-1. Proposal Cover Sheet (See Appendix C)

Show the name of your firm, Federal I.D. number, address, name of contact person, contact person's email and telephone number, date, and the subject: **Truck Parking Management System, RFP 19-10480-8386.** **Appendix C** must be signed by an individual who is authorized to negotiate terms, render binding decisions and commit your firm's resources. In addition, it is required that all information requested in **Appendix C** be provided including information pertaining to location of office performing the work, contact information, listing of all Pennsylvania offices and total number of Pennsylvania employees, and location of company headquarters.

II-2. Statement of the Problem. State in succinct terms your understanding of the service required by this RFP.

II-3. Management Summary. Include a narrative description of the proposed effort and a list of the items to be delivered and services to be provided.

II-4. Work Plan. Describe in narrative form your technical plan for accomplishing the work. Use the task descriptions in Part IV of this RFP as your reference point. Include in the text what type(s) of detection technology the Proposer intends to use at each parking location. Detail how the Proposer's

approach will meet the performance requirements described in **Task H, Part IV**. Modifications of the task descriptions are permitted; however, reasons for changes should be fully explained. Include a detailed project schedule showing each event or milestone anticipated by the Proposer.

II-5. Prior Experience. The Proposer (or major construction sub-contractor) must be PennDOT Prequalified (P1, P3 and P5) for ITS construction and integration, or provide substantial back-up to demonstrate their (personnel and previous work experience) ability to complete this project. The Proposer, design consultant and all subconsultants must have a current Annual Qualification Package on file within PennDOT's Engineering & Construction Management System (ECMS), as well as being a PennDOT registered business partner. The Proposer must also submit information on contracts/subcontracts performed over the past five (5) years for organizations (commercial, state, local, Federal, etc.) involving similar or related services. The Proposer shall submit no more than 10 contract/subcontract descriptions for the entire proposed team (Proposer plus major subcontractors/engineers). The Proposer must submit this information on the most recently completed contracts/subcontracts or on-going contract/subcontracts that are at least three (3) months into the period of performance. The following information must be provided:

- a. Customer name, address, and telephone number.
- b. Technical office point(s) of contact (name, telephone number, and email address).
- c. Contracting/Business office point(s) of contact (name and telephone number).
- d. Contract name and number, if applicable.
- e. Date of contract award and period of performance.
- f. Type of contract.
- g. Total contract dollar value at time of award.
- h. Start/End dates of Contract. Identify if the contract was completed early, late, or on-time.
- i. Brief description of product or services.
- j. Brief description of the contract's relevance to the Task Areas of this project.
- k. Matrix of Past Performance and Experience. Proposer shall create a matrix relating past work performed by the proposed team (prime Proposer plus major subcontractors) to the Task Areas of this project.

II-6. Personnel. Include the number, and names where practicable, of executive and professional personnel, programmers, consultants, etc., who will be engaged in the work. The proposal shall demonstrate the Proposer's ability to perform Tasks A - I, described in **Part IV-4**. For this project, the Proposer must include the following individuals:

- Project Manager – This person will serve as the Proposer's overall point of contact for the project. Document the experience of this individual to demonstrate a minimum of three (3) projects and five (5) years successfully managing ITS projects of similar size and content.
- Construction Project Manager - This person will serve as the Proposer's overall Construction Project Manager for the project. Document the experience of this individual to demonstrate a minimum of three (3) ITS projects successfully constructing ITS projects of similar size.
- Lead Construction Foreman - This person will serve as the Proposer's overall construction foreman for the project. Document the experience of this individual to demonstrate a minimum of three (3) ITS projects successfully constructing ITS projects of similar size.

- ITS Project Manager - This person will serve as the Proposer's overall ITS Project Manager for the project. This person must be a licensed Professional Engineer, in good standing, in the Commonwealth of Pennsylvania. Document the experience of this individual to demonstrate a minimum of three (3) projects and five (5) years successfully managing ITS projects of similar size and content.
- System Integrator/Software Lead – This person will serve as the Proposer's System Integrator/Software Lead for the project and responsible for ensuring that the software is configured as required and integrated with the Commission's ATMS. Document the experience of this individual to demonstrate a minimum of three (3) projects and five (5) years of successful system/software integration projects of similar size and content.

Show where these personnel will be physically located during the time they are engaged in the work. Include, through a resume or similar document, educational background and experience in which each team member will be providing their expertise i.e. project management, database engineering, software engineering, etc. Indicate the responsibilities each will have in this project and how long each has been with your company.

Identify the major subcontractors you intend to use and the services they will perform. Where subcontractors are named, include information regarding their role, personnel to be provided, and, through resumes or similar documents, their educational background and experience. Indicate the responsibilities each will have in this project and how long each has been with the named subcontractor.

II-8. Training. The Proposer shall describe their training approach to administrator, operator, and maintenance personnel training in this section.

The Proposer will provide up to four (4) training sessions for TOC personnel prior to system acceptance focused on administration and operator use. The Proposer will provide training materials and manuals on how to administer and operate the system including detail on all system functionality. Additionally, up to three (3) training sessions for maintenance personnel shall be provided within 2 months of the end of the contract performance period. This training will provide Commission maintenance staff the ability to continue proper maintenance of the system after the performance period expires including device calibration, device replacement, device and system troubleshooting, etc.

One (1) of each training session (admin/operator and maintenance) shall be digitally recorded by the Proposer and provided to the Commission within 2 weeks of the training session's completion.

II-9. Financial Capability. Describe the proposing company's financial stability and economic capability to perform the contract requirements. Provide the proposing company's financial statements for the past three fiscal years. If the proposing company is a publicly traded company, please provide a link to financial records on the proposing company website; otherwise provide three (3) years of the proposing company's financial documents such as audited financial statements or recent tax returns. Financial statements must include the company's Balance Sheet and Income Statement or Profit/Loss Statements. Also include a Dun & Bradstreet comprehensive report if available. The supporting documents identified above shall be included as an appendix to the proposal and will not count towards the proposal or appendix page limits.

NOTE: DO NOT INCLUDE ANY INFORMATION IN THIS SECTION THAT REFERS TO THE

PROPOSED COSTS THAT WILL BE PRESENTED IN THE COST SUBMITTAL. DOING SO WILL DISQUALIFY THE PROPOSAL.

II-10. ITS Equipment Submittal. Equipment submittals of major ITS devices and components shall be provided by the Proposer within the RFP to demonstrate that the equipment initially proposed for the project has the capability to meet the function objectives and specifications required by these Special Provisions. The level of effort required for the submittal material could vary depending on the complexity of the equipment and the degree to which the proposed equipment is off-the-shelf or custom in nature. **No cost data is to be included within the initial ITS Equipment Submission.**

II-11. Diverse Business (DB) Requirements (Appendix J). The Commission's Diverse Business (DB) Requirements for this procurement and a resulting contract are identified in **Appendix J**. There is no minimum participation level (MPL) for DBs established for this contract. However, the utilization of DBs are encouraged and will be considered as a criterion in the evaluation of proposals and may be considered as a factor in the Commission's selection of a firm for this contract.

The proposer must include in its DB participation submittal that it meets the requirements set forth in the Commission's DB Requirements - **Appendix J**. In particular, the proposer shall address the section of the DB Requirements labeled, "Actions Required by Proposer during the procurement/consultant selection phase". In addition, the DB participation submittal shall indicate the amount of DB participation incurred in the proposal in terms of dollars committed or percentage of total contract amount.

II-12. Cost Submittal. The information requested in this section shall constitute your cost submittal. **The Cost Submittal shall be placed in a separate sealed envelope within the sealed proposal, and on a CD-ROM, separate from the technical submittal.**

Proposers should **not** include any assumptions in their cost submittals. If the proposer includes assumptions in its cost submittal, the Issuing Office may reject the proposal. Proposers should direct in writing to the Issuing Office pursuant to **Part I-11** of this RFP any questions about whether a cost or other component is included or applies. All Proposers will then have the benefit of the Issuing Office's written answer so that all proposals are submitted on the same basis.

The following materials must be provided in the sealed Cost Submittal. Failure to provide any of these completed items will constitute an incomplete Cost Submittal and may result in rejection of the Proposer's proposal.

1. Completed Proposer Bid Sheet (**Appendix K**) Which includes:
 - Bid Summary Sheet
 - Itemized Cost Worksheet
 - Schedule of Values Worksheets – one (1) for each of the ten (10) service plazas

PART III

CRITERIA FOR SELECTION

III-1. Mandatory Responsiveness Requirements. To be eligible for selection, a proposal shall be (a) timely received from a Proposer; and (b) properly signed by the Proposer.

III-2. Technical Nonconforming Proposals. The two (2) Mandatory Responsiveness Requirements set forth in Section III-1 above (a & b) are the only RFP requirements that the Commission will consider to be non-waivable. The Issuing Office reserves the right, in its sole discretion, to (1) waive any other technical or immaterial nonconformities in the proposal, (2) allow the Proposer to cure the nonconformity, or (3) consider the nonconformity in the evaluation of the proposal.

III-3. Proposal Evaluation. Proposals will be reviewed, evaluated, and rated by a Technical Evaluation Team (TET) of qualified personnel based on the evaluation criteria listed below. The TET will present the evaluations to the Professional Services Procurement Committee (PSPC). The PSPC will review the TET's evaluation and provide the Commission with the firm(s) determined to be highly recommended for this assignment.

The Commission will select the most highly qualified firm for the assignment or the firm whose proposal is determined to be most advantageous to the Commission by considering the TET's evaluation and the PSPC's determination as to each firm's rating. In making the PSPC's determination and the Commission's decision, additional selection factors may be considered taking into account the estimated value, scope, complexity and professional nature of the services to be rendered and any other relevant circumstances. Additional selection factors may include, when applicable, the following: geographic location and proximity of the firm, firm's Pennsylvania presence or utilization of Pennsylvania employees for the assignment; equitable distribution of work; diversity inclusion; and any other relevant factors as determined as appropriate by the Commission.

Award will only be made to a Proposer determined to be responsive and responsible in accordance with Commonwealth Management Directive 215.9, Contractor Responsibility Program.

III-4. Evaluation Criteria. The following criteria will be used, in order of relative importance from the highest to the lowest, in evaluating each proposal:

1. **Soundness of Approach.** Emphasis here is on the techniques for collecting and analyzing data, sequence, and relationships of major steps, and methods for managing the service/project. Of equal importance is whether the technical approach is completely responsive to all written specifications and requirements contained in the RFP and if it appears to meet Commission objectives.
2. **Understanding the Problem.** This refers to the Proposer's understanding of the Commission needs that generated the RFP, of the Commission's objectives in asking for the services or undertaking the study, and of the nature and scope of the work involved.

3. **Proposer and Personnel Qualifications.**
 - Proposer's relevant experience and expertise in construction, configuration, development, implementation, testing, maintenance, and support of a Truck Parking Management System and all of its components as they relate to the requirements discussed in **Part IV** of this RFP.
 - Qualifications, experience and competency of professional personnel who will be assigned to the contract by the Proposer including tenure with firm, length of time in the industry and type of experience.
 - Qualifications of the Proposer.
 - Response of references if the Commission elects to solicit them.
4. **Cost.** While this area may be weighted heavily, it will not normally be the deciding factor in the selection process. The Commission reserves the right to select a proposal based upon all the factors listed above, and will not necessarily choose the firm offering the best price. The Commission will select the firm with the proposal that best meets its needs, at the sole discretion of the Commission.
5. **Commitment to Diversity and Inclusion.** This refers to the inclusion of DB firms, as described in **Part II-11**. Participation may be measured in terms of total dollars committed or percentage of total contract amount to certified DB firms.

PART IV

WORK STATEMENT

IV-1. Objectives.

a. General. The primary objective of this RFP is to select a Proposer to design, furnish, construct, configure, calibrate, integrate, test, and maintain a Truck Parking Management System (TPMS) made up of subsystem components that work together to provide truck parking availability information to truckers. The system components include a cloud hosted software system (SaaS), vehicle detection equipment, and CCTV cameras at the ten (10) identified Commission service plazas (Sideling Hill, Blue Mountain, Highspire, Lawn, Bowmansville, Peter J. Camiel, Valley Forge, King of Prussia, Allentown, and Hickory Run service plazas) and Digital/Static Hybrid message sign(s) located within service plazas with auxiliary truck parking lots (Lawn). Additionally, the Proposer will train Commission personnel on how to administer, operate, and maintain the system. The work includes all required maintenance and protection of traffic in accordance with Commission standards. For short-term closures to install and maintain ITS devices and associated structures/foundations, the Proposer is responsible for any/all lane and/or shoulder closures.

The Commission standards may be found at www.paturnpike.com/business/engineering_standards.aspx

The system will meet the following objectives:

- The TPMS will collect truck parking data from detectors deployed under this project at each of the identified services plazas to calculate the current truck parking availability at each plaza.
- The TPMS will be operated and administered through a browser based Graphical User Interface (GUI) by Commission TOC personnel. The backend equipment for the TPMS will be hosted in the cloud and maintained and supported by the Proposer.
- The TPMS will integrate with the existing Advanced Transportation Management System (ATMS provided by IBI group) to display truck parking availability data on the existing DMS and digital/static hybrid message signs installed under this project.
- The TPMS will provide a public data feed in the specified format (Appendix I – MAASTO Data Feed Specification) to be made available to other state agencies, as well as third party application developers.

IV-2. Nature and Scope of the Project. The Selected Proposer will:

- Provide a Commercial-Off-The Shelf (COTS) Truck Parking Management software system
- Configure and/or customize proposed system modules (if applicable)
- Deploy, test, maintain, administer, and support the software system in a cloud hosted environment
- Provide a public data feed of truck parking availability information in a specified format
- Design and construct the vehicle detection subsystems and CCTV camera assemblies at each of the identified service plazas

- Design, procure and construct the digital/static hybrid message sign(s)
- Integrate with the existing ATMS via data feed (e.g. xml, json), which will control existing DMS and proposed digital/static hybrid message sign(s)
- Integrate deployed CCTV cameras into the existing Commission video management system (Genetec) to control and monitor for truck count validation
- Train Commission personnel on operation and maintenance of the system
- Maintain and support the system to meet specified performance requirements through the contract performance period

Tasks are outlined in Section IV-4 of this RFP.

For better understanding of the nature and scope of the project, Proposers are also referred to additional documentation contained in the RFP appendices:

- **Appendix L** – MAASTO Data Feed Specification
- **Appendix M** – PTC TPMS Concept of Operations
- **Appendix N** – Supplemental Plans
- **Appendix O** – As-Built Plans (by request only)

IV-3. Requirements.

In addition to the Tasks and Deliverable identified in Section IV-4, the requirements for the TPMS are defined within the following:

- a. **Appendix P** – Special Provisions
- b. **Appendix Q** – TPMS System Requirements
- c. **Appendix R** – Service Level Agreement
- d. **Appendix S** – Holiday Schedule
- e. **Appendix T** – Environmental Clearances
- f. Pennsylvania Turnpike Commission Construction Specifications
- g. PennDOT Publication 408 (current version) Construction Specifications and Standards
- h. **Workstation Information.** The proposed solution shall, at a minimum, be compatible with the following:
 - Operating Systems: Microsoft Windows (7, 8, 8.1, and 10)
 - Browsers: Internet Explorer 11, Edge, Google Chrome, and Mozilla Firefox
 - Mobile Platforms: Apple iOS and Google Android
- i. **Commission Security.** The selected proposer shall adhere to all security requirements and provisions of **Appendix E – Commission Security Requirements**

IV-4. Tasks and Deliverables

Task A: Project Management

1. Provide a project schedule to Commission for review and approval of the tasks associated with all phases of this project. The schedule, created in the latest version of Microsoft Project, shall detail, at a minimum the tasks provided below, as well as all tasks/subtasks the Proposer requires to complete each phase in a clear and efficient manner. In addition, the schedule should identify the milestones listed below:
 - Notice to Proceed
 - System Block Diagrams
 - List of Equipment/Submittals
 - Begin Procurement
 - Preliminary Engineering Design
 - Final Engineering Design
 - Engineering Design Approval
 - End Procurement
 - Field Construction Start/End
 - Training
 - Standalone Testing
 - Operational Acceptance Testing
 - Submission of Final As-Built Drawings
 - Final System Acceptance by Commission
 - Performance Period Begin
 - Turnover
 - Performance Period End
2. Attend and conduct monthly project status meetings. Additional meetings may be requested by Proposer and/or the Commission as needed through the Design and Construction phases. These additional meetings, if requested, may be performed via Telecom. Agendas and Meeting Minutes will be prepared by the Commission or its Representative and distributed within five (5) business days, for review and comment by all attendees. Final Meeting Minutes will be issued upon receipt, acknowledgment and/or concurrence of draft Minute revisions.
3. Project management is incidental to the project and will not be paid separately.
4. The Proposer shall submit for approval a Quality Control/Quality Assurance Plan; and adhere to the approved plan throughout the entire project.

Task B: Design

1. **Design Plan Development.** The Proposer shall complete, for construction, a design plan set for each of the system components (vehicle detection, CCTV, digital/static hybrid signs) in accordance with the Special Provisions and PennDOT and Commission design and construction standards. The plan sets shall be developed using Commission plan presentation standards and

shall include, but not be limited to, the sheets and sheet sets listed in **Appendix P – Special Provisions**.

60% preliminary plans, 100% final plans, and all supporting calculations shall be submitted and reviewed for approval by the Commission. All design elements shall be reflected in the plans and package.

Topographical Survey is not required. Aerial imagery can be utilized for base plans at service plazas as long as the imagery is accurate to the current plaza geometry.

A sign fabrication plan for the digital/static hybrid message sign is provided in **Appendix N – Supplemental Plans**.

As-Built documentation shall be submitted and approved to gain System Acceptance.

- 2. Closed Circuit Television Cameras Assembly.** The CCTV camera(s) shall be positioned to provide an unobstructed view of all areas where trucks are capable of parking to allow operators to validate the real-time truck parking availability data. Proposed cameras to be mounted on a proposed dedicated pole shall be designed to utilize standard 50' or 70' pole heights with lowering device. Mounting of cameras to existing PTC buildings, light poles, and structures is acceptable, however must be accessible by a 30' bucket truck. Control cabinets shall be pole mounted (if the camera is dedicated pole mounted) or pedestal or wall mounted (if the camera is mounted to an existing infrastructure) to be accessed safely from the ground. The cameras shall utilize Commission provided cellular gateway modems for communication back to the TOC. The Commission will be responsible for configuring the cellular communication devices and all cellular service costs. Upon acceptance, the CCTV assemblies will be maintained by the Commission.

Note: Selected Proposer shall consider in their design that a zoning ordinance structure height restriction of 18' Valley Forge Service Plaza, therefore CCTV cameras will need to be mounted to existing facilities at this location.

- 3. Vehicle Detection.** The Proposer has the flexibility to design the vehicle detection subsystem layout and selected detection technologies. It is anticipated that an in/out counting configuration will be required due to the service plaza geometry and variability of vehicle flow through the service plazas. It is very common for trucks to park in wide areas throughout the plazas where spaces are unmarked or unauthorized. Because of this, it is a requirement of the software system to allow for modification of lot capacities and other variables, as fine tuning of the system is anticipated. Additionally, future reconfiguration and addition of striped spaces is expected at some time in the future. The designer must also account for access gate entrances as it is common place for Commission maintenance vehicles of size similar to commercial vehicles to enter and exit the roadway system through these gates. The designer shall consider all clear zone setback requirements for breakaway poles and guide rail needs in the placement of detection equipment

and supports. Mounting of detection equipment and equipment cabinets on existing structures/poles is acceptable, however must be approved by the Commission.

4. **Digital/Static Hybrid Message Signs.** A standard fabrication drawing is provided in **Appendix N – Supplemental Plans**. The Digital/Static Hybrid Message Signs shall be placed at locations within a service plaza that have an auxiliary truck parking lot (Lawn Service Plaza). Design the sign supports and footings in accordance with ITS-1230. A three 12” character amber/red/green display shall be utilized for the digital inset. See **Appendix P – Special Provisions** for additional information and requirements.

5. **Electrical Service and Power Supply System.** The Selected Proposer is responsible for determining and designing for the method to power all subsystems at each Service Plaza. The Selected Proposer is limited to the individual use or any combination of the following power supply system solutions:
 - **New Electrical Service.** The Selected Proposer shall coordinate with the utility to provide a new metered, underground or aerial service. The Selected Proposer will be responsible for electricity costs until System Acceptance. Upon System Acceptance, the service account(s) will be transferred to the Commission. New electrical services shall be designed and constructed to Commission/PennDOT standards.

 - **New Branch Circuit(s).** A new branch circuit(s) originating from within the existing Service Plaza electrical distribution panel. Branch circuit metering shall be used to identify power usage on the circuit. The Commission will be responsible for electricity costs. Existing raceway and conduit paths may be utilized provided that the raceways and conduits have the capacity to handle the additional conductors, per the current National Electric Code (NEC).

 - **Tapping Existing Circuits.** An existing circuit may be tapped if the circuitry to be tapped has the ampere and overcurrent protection capacity available to handle the additional load. Tapping of circuits shall be in accordance with the current NEC. Electrical power usage on the new portion of the tapped circuit shall be metered. Electricity costs will be the responsibility of the Commission.

 - **Alternative Power Solutions.** Alternative power solutions may be proposed and must be approved by the Commission. An alternative power solution must be robust with minimal requirements for maintenance. If batteries are proposed, they must be sealed gel cell batteries. Any battery banks required must be sized to 130% of required days/hours of autonomy for the region and stored in a dedicated battery enclosure.

All proposed infrastructure elements (electrical cabling, conduit, junction boxes, disconnects, cabinets, enclosures, splices enclosures, etc.) for the electrical power supply system shall be in

accordance with the NEC, special provisions, Publication 408 and Commission specifications as applicable.

Conduits for use by the TPMS are being installed through the Lawn Service Plaza expansion project. A plan sheet showing the location of this conduit is provided in **Appendix N – Supplemental Plans**.

6. **Service Plaza Expansion Project Coordination.** The designer is responsible for coordinating with any concurrent service plaza expansion projects in design or construction to ensure that proposed TPMS system components will account for the final conditions. Expansion of the Lawn Service Plaza will be in construction or recently finished during this project's time frame and Highspire Service Plaza expansion is currently in the design phase.
7. **Equipment and Material Submittals.** Prior to the start of construction, The Proposer shall submit cut sheets and supporting documentation for all equipment and materials to be utilized in construction. The equipment shall be in accordance with the Special Provisions, and applicable Commission and PennDOT equipment and material standard specifications (CS and Publication 408).
8. **Software Configuration.** The Proposer shall administer meetings as required to discuss the configuration of the COTS software to the extent proposed and required. The meetings will cover, at a minimum, how the software will behave operationally e.g. defining thresholds, lot capacities, data refresh rates, error handling, and any other information required by the system to meet the system requirements.

Task C: Construction

1. **Procurement.** The Proposer shall procure all materials and equipment required to construct all project components.
2. **Construction.** The Proposer shall construct all project components in accordance with the approved design plans.

Task D: Software Deployment / Integration

1. **Deployment.** The Selected Proposer shall stand up the software system in the hosted environment and provide login credentials for any number of administrator and operator users.
2. **Integration.** The Selected Proposer shall coordinate with Commission staff and representatives from the Commission's ATMS (IBI) to establish a secure connection and system interface to provide the truck parking availability data feed to the ATMS. The ATMS will digest the information and populate/control DMS based on the information provided from the feed. **Appendix L – MAASTO Data Feed Specification** identifies the information anticipated to be

provided to the ATMS. The ATMS will be responsible for selecting the appropriate DMS to activate, and building/posting the appropriate messages to those DMS, based on the information in the feed.

- 3. Third-Party Data Feed.** The Selected Proposer shall expose a third-party data feed to interested and approved entities through the use of industry standard practices. The feed shall meet the specified format provided in **Appendix L – MAASTO Data Feed Specification**.

Task E: Testing

- 1. Standalone Acceptance Test Plan.** The Selected Proposer shall develop, and submit for approval, Standalone Acceptance Test (SAT) Plans to ensure the proper operation of each field subsystem component. The test shall be in a “Pass/Fail” format where each procedure describes the tester’s action and the expected result. The Selected Proposer will coordinate with the Commission and conduct the approved testing plan. The SAT shall be conducted at each of the selected Service Plazas. A Commission representative must witness the successful completion of the test plan and will sign off on the final test form with all procedures having “Passed”.
- 2. 60-Day Operational Acceptance Test Plan.** An Operational Acceptance Test (OAT) Plan shall be developed and submitted for approval. The OAT plan shall test the complete system for proper functionality over the entire length of the 60-day period. The OAT shall be in a “Pass/Fail” format where each procedure describes the tester’s action and the expected result. The Selected Proposer will coordinate with the Commission and conduct the approved testing plan.

The 60-day test shall be separated into two phases and represented as such in the OAT plan:

Phase 1 will consist of the first 30-days of the 60-day period. The Selected Proposer shall monitor the operation of the detection operation of the system only, with the messaging functionality of the ATMS and 3rd party data feed turned off. During this phase, in coordination with the Commission, the system will be fine-tuned to establish the proper lot capacities and thresholds for each service plaza to ensure that accurate information is provided to travelers by the system. All data collected during this phase shall be recorded and saved for an after-study analysis to determine the effectiveness of the system once the messaging functionality is turned on.

To validate the accuracy of the TPMS detection systems and processed data, Selected Proposer shall perform an accuracy test for each service plaza (lot) using the following procedure:

- Test all lots in the system hourly for a continuous 36-hour period, at a minimum, during a regular non-holiday business week on a Tuesday through Thursday.
- Begin the test by recalibrating all lots to accurate system counts.
- Perform hourly checks on each lot. Record the system count and the observed truck count at each hourly increment check. Recalibrate the system every 12 hours (at the 12th hour and 24th hour only) to emulate the operating procure intended to be executed by the Commission.
- Calculate the Average Accuracy Rate for each lot by averaging all 35 1-hour accuracy rate records.

- The average accuracy rate for each lot must be higher than the specified rates of 85% for lots less than 15 spaces, and 90% for lots of 15 or more spaces.
- If a lot's average accuracy rate does not meet the requirement, adjust the system/sub-systems as required and repeat the test for that lot, until the required accuracy rate is achieved.

The Selected Proposer shall include the accuracy procedure above as part of their Phase 1 OAT plan.

The successful completion (all procedures "Passed") of Phase 1 testing must be witnessed and signed off on by a Commission representative, prior to the start of Phase 2 testing.

Phase 2 will consist of the second 30-days of the 60-day period. The Selected Proposer shall activate the 3rd party data feed and coordinate with the ATMS vendor to activate the messaging functionality.

This test plan shall coordinate with the ATMS system vendor to ensure that the system functions as intended from data collection to DMS activation/deactivation. The successful completion (all procedures "Passed") of Phase 2 testing must be witnessed and signed off on by a Commission representative in order to gain System Acceptance.

Task F: Training

- 1. User Training.** The Selected Proposer will be required to provide training and training materials to the anticipated TPMS users. The training sessions will be held at the Commission's Turnpike Industrial Park (TIP) Building. The Commission anticipates that administrator/operator training sessions will be needed for TOC operators, Traffic Engineering and Operations, and IT personnel. The operator sessions topics shall include but not be limited to: daily system operation, system capabilities, reporting. The administrator sessions topics shall include but not be limited to: all operator session topics, adding/removing/modifying lots, managing users and logins, troubleshooting, and SaaS architecture for system understanding.

The Commission also anticipates that a subset of TPMS users will need to be trained to become the Commission trainers for future user groups. The Selected Proposer shall incorporate "Train the trainer" sessions in the training plan to meet this need. The Selected Proposer shall be prepared to hold up to four (4) training sessions to facilitate normal business hours staff, as well as off-hours, night shift staff.

The Commission estimated TPMS user group sizes are:

- Up to 8 users with full functional capabilities (Duty Officers)
- Up to 5 users with full functional capabilities with a focus on TOC Management (TOC Managers)
- Up to 5 administrators (IT personnel or representative)
- Up to 5 Trainers for Train-the-Trainer roles

At a minimum, the Selected Proposer shall provide detailed user manuals and troubleshooting guide. Taking into consideration the user groups, the Selected Proposer will develop an all-inclusive training plan. The Selected Proposer shall incorporate industry standards and standard practices, and Selected Proposer experience when developing the training plan. At least one of the training sessions shall be digitally recorded and submitted for future use by the Commission.

- 2. Maintenance Training.** At the end of the performance period, the Selected Proposer will turnover maintenance responsibilities to the Commission. The Selected Proposer shall provide up to three (3) sessions to training Commission maintenance staff and/or maintenance contractor on physical maintenance and trouble shooting of field devices. The Selected proposal shall provide (electronically) maintenance documentation for each field device and system, as well as training materials for use in the sessions. These sessions shall be hands on with the equipment, either in the field, or at another Commission facility.

Task G: SaaS Licensing

The Selected Proposer shall indicate in the technical proposal how many licenses will be provided as part of the SaaS TPMS system and whether the license agreement is site-based or user-based. The Commission requires a minimum of ten (10) concurrent users of the system or three (3) sites. Site license access shall include access by users via VPN remote login through the Commission network from any location. The Selected Proposer shall document and provide the cost for all license(s) in **Appendix K – Proposer Bid Sheet**.

Task H: Operational Maintenance and Support (Performance Period)

The Selected Proposer shall be responsible to maintain an accuracy rate of 85% for sites with less than 15 spaces, and 90% at sites with 15 or more spaces. Refer to **Appendix Q – System Requirements** for how accuracy rate is calculated. The system is required to maintain a System Availability of 99.95%. Refer to **Appendix R – Service Level Agreement** for system uptime and Service Request resolution time requirements.

The Selected Proposer shall be responsible for the following:

- Meet all system requirements identified **Appendix Q – System Requirements**
- Maintain all installed equipment through System Acceptance.
- Maintain all Vehicle Detection subsystem equipment through the end of the contract period.
- Monitor the system 24/7 to identify malfunctions.
- Provide on-site or remote service interruption analysis at sites identified as malfunctioning.
- Resolve all Service Requests per the terms of **Appendix R - Service Level Agreement** for all system related failures/faults/errors/issues etc.
- Prepare and submit a monthly system performance report via email to the Commission project manager. See **Appendix R – Service Level Agreement**.

The Performance Period will begin the calendar day following system acceptance. This period will extend until the end of the contract term. Refer to **Appendix P – Special Provisions** for additional information.

Task I: Turnover

Turnover Plan. Turnover may occur at the identified milestone agreed upon by the Selected Proposer and the Commission and/or at the end of the contract. The turnover plan must identify the critical tasks that need to occur to provide a smooth and orderly turnover of functions to the Commission or to another Commission specified entity.

The work activities associated with this task include, but are not limited to, the following:

- Activities necessary to turn over the business application functions in an orderly manner
- Specialized technical transition of application(s)
- Knowledge transfer activities
- Solution turnover objectives and work plan activities on a chart, including activity time frames and responsibilities
- Resources required, including those from the Commission, the Selected Proposer, and any new contractor
 - For each component that is turned over to the Commission for maintenance, the Selected Proposer shall complete a comprehensive component maintenance assessment. The assessment must include the component name, technology, a level of effort (LOE) estimate and a skill set description needed to maintain the component.
- Maintenance Training – Training of Commission staff or designated maintenance contractor to maintain the TPMS field equipment upon system turnover.

This turnover plan must be submitted to the Commission for final review and approval. The Turnover Plan shall be submitted for review six (6) months prior to the end of the contract term.

Turnover. The Selected Proposer will execute the Turnover Plan and is responsible for delivery of the following:

- Services to ensure a smooth and orderly transition of functions, programs, responsibilities, services and systems to the Commission or to another entity specified by the Commission.
- Transitioning the business applications, providing the updated versions of documentation, and completing knowledge transfer activities according to the approved turnover plan.
- Turning over the following documents/information:
 - Production program documentation and any updated procedures
 - Any/all data stored, in production or archived
 - Final user and system documentation
 - References and operational instructions to technology assets
 - Any information that is currently in use to support the application

During the turnover activities, the Selected Proposer must submit weekly Turnover Progress Reports and, at the end of the turnover period, the Selected Proposer must prepare a report that documents the completion of turnover activities and provides status of each high-level task and activity that took place during the full service period.

The deliverable for this task shall be weekly Turnover progress reports and a successful completion of the approved Turnover Plan.

Task J – Construct Additional Locations (Optional)

This task is reserved for the Commission to negotiate with the Selected Proposer to construct, integrate, and maintain additional detection and CCTV cameras into the TPMS at additional services plazas not included in the originally contracted construction phase. An agreement must be executed prior to the expiration of the original or extended contract and construction must be completed prior to the expiration of the same period. The Commission and the Selected Proposer reserve the right to mutually agree upon the scope, specific tasks, and schedule for completion of Task J.

AGREEMENT

This **AGREEMENT** is made this _____ day of _____, 2019, between the **Pennsylvania Turnpike Commission** (“**COMMISSION**”), an instrumentality of the Commonwealth of Pennsylvania, with principal offices at 700 South Eisenhower, Blvd., Middletown, Pennsylvania 17057 (mailing address: P. O. Box 67676, Harrisburg, PA 17106-7676);

AND

(name of contractor) (“**CONTRACTOR**”), a **(state)** corporation, with its principal office at **(address)**.

WITNESSETH:

WHEREAS, the **COMMISSION** desires to satisfy a need for the **(name of solicitation)**;

WHEREAS, by Act No. 211 of the General Assembly of the Commonwealth of Pennsylvania, approved May 21, 1937, and its amendments, the **COMMISSION** is authorized and empowered to enter into an Agreement with the **CONTRACTOR**;

WHEREAS, the **COMMISSION** desires to retain the services of **CONTRACTOR** upon the following terms; and

NOW, THEREFORE, in consideration of these mutual covenants, and intending to be legally bound, the parties agree as follows:

Contractor’s Scope of Work

The **CONTRACTOR** will perform the work described in **(solicitation identification, i.e. RFP number)** dated **(date of solicitation)**, titled **(Title of solicitation)** and the **CONTRACTOR’S** proposal dated **(date of contractor’s proposal)**. These documents are made a part of this Agreement by reference.

Commission’s Responsibilities

(As defined in Section I of the RFP, “Commission Participation”)

The **COMMISSION** shall furnish the **CONTRACTOR** access to key personnel, relevant documents, and adequate workspace for completing the work.

Compensation

For the work, services, and material as defined in this Agreement, the **CONTRACTOR** shall be paid **(insert Commission approved Compensation)**.

The **CONTRACTOR** agrees that the **COMMISSION** may set off the amount of any state tax liability or other obligation of the **CONTRACTOR** or its subsidiaries to the Commonwealth against any payments due the **CONTRACTOR** under any contract with the **COMMISSION**.

Duration of Agreement [and Renewal]

The term of this Agreement shall be for a period of **(agreement term)** and shall commence on the Effective Date as defined below.

The Effective Date shall be fixed by the **COMMISSION** after the Agreement has been fully executed by the **CONTRACTOR** and by the **COMMISSION**, and after all approvals required by the **COMMISSION** contracting procedures have been obtained.

The term may be extended for **[number]** additional years by a writing signed by both parties.

This Agreement will not terminate until the **COMMISSION** accepts all work as complete and tenders final payment to the **CONTRACTOR**.

Termination

The **COMMISSION** may terminate this Agreement at any time upon thirty- (30) calendar days written notice. If this notice is given, the **CONTRACTOR** shall be paid only for the services already rendered upon the date of the notice and for the services rendered to the date of termination, subject to all provisions of this Agreement. The notice will be effective on the date of receipt. The right to cancel may be exercised as to the entire project, or as to any particular phase or phases, part or parts, and upon one or upon several occasions, but any termination may not be revoked except upon written consent of the parties through a supplemental Agreement to this Agreement.

Insurance

The **CONTRACTOR**, prior to execution of this Agreement, shall furnish to the **COMMISSION** the certificates of insurances as required in attached **Exhibit "X"** and made a part of this Agreement.

Diverse Business (DB) Requirements

The **CONTRACTOR** agrees to comply with the requirements set forth in the **COMMISSION'S** DB Requirements - **Exhibit X**, attached and made part of this Agreement. In particular, the **CONTRACTOR** agrees to comply with section (d) Consultant Requirements During Performance of Services.

Assignment and Delegation

The **CONTRACTOR** may not transfer, assign, or delegate any terms of this Agreement, in whole or in part, without prior written permission from the **COMMISSION**.

The **CONTRACTOR** shall not engage the services of any person or persons currently employed by the **COMMISSION**, except with the **COMMISSION's** approval.

The **CONTRACTOR** shall neither assign this contract, in part or in whole, nor the right to any monies due it under this Agreement. Any part of the work to be done or material furnished under the contract shall not be sublet except to those firms indicated as part of the team in the initial Proposal, without the **COMMISSION's** prior consent in the form of a letter signed by the *Department Head (update accordingly)*.

Governing Law

This Agreement will be interpreted according to the laws of the Commonwealth of Pennsylvania.

Observance of Laws

The **CONTRACTOR** agrees to observe all relevant federal, state, and local laws and to obtain in its name all necessary permits and licenses.

Work for Hire

Except for hardware, third party licensed software, and software previously developed by **CONTRACTOR**, all Deliverables, including but not limited to source code, software, specifications, plans, designs and engineering, drawings, data, information or other written, recorded, photographic, or visual materials, trademarks, service marks, copyrights or other Deliverables produced by **CONTRACTOR** or any supplier in the performance of this Agreement shall be deemed "Work Product". All Work Product shall be considered services for hire. Accordingly, except as set forth earlier in this paragraph, all Work Product shall be the exclusive property of the **COMMISSION**. The **CONTRACTOR** agrees to notify the **COMMISSION** in writing before using any of **CONTRACTOR's** previously developed software for services provided under this Agreement. The **CONTRACTOR** and the **COMMISSION** will honor all applicable preexisting licenses, copyrights, trademarks, service marks, and patents. If as part of an expense item under this Agreement, the **CONTRACTOR** purchases the right to any license, the agreements for the use or ownership of such license will be placed in the name of the **COMMISSION** along with all other rights and obligations. In addition, the **CONTRACTOR** will mark all **COMMISSION** content or previously unprotected work product designated by the **COMMISSION** with a notice as follows: "Pennsylvania Turnpike Commission, (Year)".

Audit/Retention of Records

CONTRACTOR and its subcontractors shall maintain books and records related to performance of this Agreement or subcontract and necessary to support amounts charged to the **COMMISSION** in accordance with applicable law, terms and conditions of this Agreement, and generally accepted accounting practice. **CONTRACTOR** shall maintain these books and records for a minimum of three (3) years after the completion of the Agreement, final payment, or completion of any contract,

audit or litigation, whichever is later. All books and records shall be available for review or audit by the **COMMISSION**, its representatives, and other governmental entities with monitoring authority upon reasonable notice and during normal business hours. **CONTRACTOR** agrees to cooperate fully with any such review or audit. If any audit indicates overpayment to **CONTRACTOR**, or subcontractor, the **COMMISSION** shall adjust future or final payments otherwise due. If no payments are due and owing to **CONTRACTOR**, or if the overpayment exceeds the amount otherwise due, **CONTRACTOR** shall immediately refund all amounts which may be due to the **COMMISSION**. Failure to maintain the books and records required by this Section shall establish a presumption in favor of the **COMMISSION** for the recovery of any funds paid by the **COMMISSION** under this Agreement for which adequate books and records are not available to support the purported disbursement.

Dispute Resolution

All questions or disputes regarding any matter involving this Agreement or its breach shall be referred to the Board of Claims of the Commonwealth of Pennsylvania pursuant to 62 Pa.C.S.A. § 1701 *et seq.* If the Board of Claims either refuses or lacks jurisdiction, these questions or disputes shall proceed as provided in 42 Pa.C.S.A. § 7301 *et seq.* (Statutory Arbitration).

The panel of arbitrators will consist of a representative of each of the parties and a third party chosen by the representatives, or if the representatives are unable to choose, by the American Arbitration Association.

Indemnification

The **CONTRACTOR** shall be responsible for, and shall indemnify, defend, and hold harmless the **COMMISSION** and its Commissioners, officers, employees, and agents from any claim, liability, damages, losses, causes of action, and expenses, including reasonable attorneys' fees, arising from damage to life or bodily injury or real or tangible personal property caused by the negligence or other tortious acts, errors, and omissions of **CONTRACTOR**, its employees, or its subcontractors while engaged in performing the work of this Agreement or while present on the **COMMISSION**'s premises, and for breach of this Agreement regarding the use or disclosure of proprietary and confidential information where it is determined that **CONTRACTOR** is responsible for any use of such information not permitted by this Agreement. The indemnification obligation shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for Contractor or its subcontractors under Workmen's Compensation Acts, Disability Benefits Acts, or other Employee Benefit Act.

Data/Information Security Breach Notification

"Breach" shall mean any successful unauthorized acquisition, access, use, or disclosure of **COMMISSION** data that compromises the security or privacy of such data.

"Commission Data" means **COMMISSION** provided information and **COMMISSION** related information acquired as a result of the services provided to **COMMISSION** under this Agreement.

CONTRACTOR shall report to the **COMMISSION** any Breach affecting **COMMISSION** Data. The notice to be provided to the **COMMISSION** by **CONTRACTOR** shall be provided without unreasonable delay and no later than within 72 hours of **CONTRACTOR**'s discovery of any Breach. A Breach shall be deemed to be discovered on the first day on which the **CONTRACTOR** knows or reasonably should have known of the Breach. The notice to be provided to the **COMMISSION** by **CONTRACTOR** shall be made in writing to the **COMMISSION**'s Information Security Officer and shall include the following content: (1) the nature of the Breach; (2) the specific Commission Data affected by the Breach; (3) the steps the **CONTRACTOR** is taking to remediate the Breach; and (4) steps the **CONTRACTOR** is taking to mitigate future Breaches. Following notification of the Breach, **CONTRACTOR** shall cooperate with the **COMMISSION**'s investigation of the Breach and provide any other information regarding the Breach or the Commission Data affected which the **COMMISSION** may reasonably request. Should notice to individuals whose information was part of Commission Data be required under any applicable data privacy law, including, but not limited to, individual state data breach notice laws or federal laws such as HIPAA and Gramm Leach Bliley Act, **CONTRACTOR** shall provide the **COMMISSION** with copies of any template notification letters and draft regulatory correspondence for **COMMISSION**'s prior approval. **CONTRACTOR** shall provide any notifications required under the applicable data privacy laws on behalf of the **COMMISSION** at the request of **COMMISSION**. The **COMMISSION** reserves the right to handle any notifications required and shall notify **CONTRACTOR** if the **COMMISSION** will be handling the required notifications. Upon request, **CONTRACTOR** shall provide the **COMMISSION** with its cyber-security policies and procedures. **CONTRACTOR** agrees to reimburse the **COMMISSION** for any and all reasonable costs associated with the **COMMISSION**'s response to **CONTRACTOR**'s Breach, including any fees associated with the **COMMISSION**'s investigation of **CONTRACTOR**'s Breach, notification costs, and any reasonable offer of credit or identity monitoring product.

Liquidated Damages (This Section can be removed if not applicable to the RFP)

- (a) By accepting this Contract, the Contractor agrees to the delivery and acceptance requirements of this Contract. If a Contract schedule is not met, the delay will interfere with the Commission's program. In the event of any such delay, it would be impractical and extremely difficult to establish the actual damage for which the Contractor is the material cause. The Commission and the Contractor therefore agree that, in the event of any such delay the amount of damage shall be the amount set forth in this Section "Liquidated Damages" and agree that the Contractor shall pay such amount as liquidated damages, not as a penalty. Such liquidated damages are in lieu of all other damages arising from such delay.
- (b) The Commission and Contractor agree that the Deliverables identified in the Payment Schedule set forth in this Contract as "Major Deliverables" (the "Major Deliverables") shall be those for which liquidated damages shall be applicable in the event of delay of their completion beyond the delivery date specified in the Contract. If Major Deliverables

are not identified in the Contract, liquidated damages shall apply to the total value of the Contract.

- (c) The amount of liquidated damages for any such Major Deliverable not completed by the deliverable schedule set out in the Contract shall be *[This % should be reviewed with each RFP/Agreement]* three-tenths of a percent (0.3%) of the price of the specifically identified Major Deliverable for each calendar day following the scheduled completion date of such Major Deliverable. Liquidated damages shall be assessed each calendar day until the date on which the Contractor completes such Major Deliverable, up to a maximum of thirty (30) calendar days. Contractor may recoup the total amount of liquidated damages assessed against previous Major Deliverables if the Contractor accelerates progress towards future Major Deliverables and meets the final project completion date set out in the Contract.
- (d) If, at the end of the thirty (30) day period specified in “Liquidated Damages - (c)” above, the Contractor has not met the schedule for completion of the Major Deliverable, then the Commission, at no additional expense and at its option, may either:
 - (1) immediately terminate the Contract and all software, documentation, reports, Developed Materials and any other materials provided for or created for the Commission as a result of this Contract shall be given to the Commission, and the Commission shall be entitled to its remedies under “Termination”; or
 - (2) order the Contractor to continue with no decrease in effort until the work is completed in accordance with the Contract and accepted by the Commission or until the Commission terminates the Contract. If the Contract is continued, any liquidated damages will also continue until the work is completed.
- (e) At the end of the Contract term, or at such other time(s) as identified in the Contract, liquidated damages shall be paid by the Contractor and collected by the Commission by deducting them from the invoices submitted under this Contract or any other contract Contractor has with the Commission, by collecting them through the performance security, if any, or by billing the Contractor as a separate item.
- (f) To the extent that the delay is caused by the Commission, no liquidated damages will be applied.
- (g) If the delays are caused by the default of a Subcontractor, and if such default arises out of causes beyond the control of both the Contractor and Subcontractor, and without their fault or negligence, the Contractor shall not be liable for liquidated damages for delays, unless the supplies or services to be furnished by the Subcontractor were obtainable from other sources in sufficient time to permit the Contractor to meet the required performance schedule.

Security Requirements

The Security Requirements are attached as **[Exhibit X]** and made a part of this Agreement.

Contractor Integrity Provisions

The Contractor Integrity Provisions are attached as **Exhibit X** and made a part of this Agreement.

Confidentiality Provisions

1. As a consequence of the performance of its duties with the **COMMISSION, CONTRACTOR** may learn, be given, or become aware of certain information, including, but not limited to, matters pertaining to internal communications, information, proprietary information, individually identifiable health information, trade practices, business operations, or other sensitive information collectively known as Confidential Information. Regardless of how transmitted or received by **CONTRACTOR**, whether by receipt, sending, or merely becoming available to **CONTRACTOR** through its relationship to the **COMMISSION, CONTRACTOR** agrees to maintain and treat as proprietary and confidential to the **COMMISSION** all such Commission Confidential Information, and shall not discuss, reveal, or use for any purpose outside the performance of its contract with the **COMMISSION** such Commission Confidential Information. Confidential Information shall not include any information that (i) is or becomes available to the public other than as a consequence of a breach by any individual, a partnership, a corporation, an association, a limited liability company, a joint stock company, a trust, a joint venture, an unincorporated organization (each a "Person") of any fiduciary duty or obligation of confidentiality, including, without limitation, catalogues, publications, product descriptions and sales literature that the **COMMISSION** has distributed to the public generally; or (ii) information which at the time of disclosure to the **CONTRACTOR** is in the public domain; or (iii) is disclosed as required by a final, unappealable court order and no suitable protective order, or equivalent remedy, is available, or (iv) the **CONTRACTOR** was aware of prior to its disclosure to the **CONTRACTOR** by the **COMMISSION** from a source not bound by a confidential obligation and the **CONTRACTOR** provides the **COMMISSION** written notice of such fact prior to the execution of this Agreement or promptly upon the **CONTRACTOR**'s learning that the information was Confidential Information; or (v) information which the **CONTRACTOR** can demonstrate with competent written evidence was independently developed by or for the **CONTRACTOR** without use of or reliance on the Confidential Information.

2. With respect to its employees, **CONTRACTOR** agrees to:

- a) require all of its employees to maintain such confidentiality;
- b) take appropriate action against its employees, officers, and subcontractors for any and all violations of this Agreement.

3. With respect to any subcontractors that **CONTRACTOR** wishes to employ to perform any of its obligations under any agreement with the **COMMISSION, CONTRACTOR** agrees to require

any such approved subcontractor to execute written confidentiality agreements that require each such subcontractor and its employees to comply with all the requirements set forth above.

4. **CONTRACTOR** agrees that any breach of these Confidentiality Provisions may result in civil and/or criminal penalties, for **CONTRACTOR**, its officers and employees, and subcontractors.

5. Notwithstanding any other provision to the contrary, **CONTRACTOR** agrees that these provisions shall survive the termination of this and any and all agreements between the **CONTRACTOR** and the **COMMISSION**.

6. **CONTRACTOR** agrees to treat the information in the same way **CONTRACTOR** treats its own most confidential information and to inform each such person of these provisions.

7. **CONTRACTOR** agrees to immediately notify the **COMMISSION** of any information which comes to its attention which does or might indicate that there has been any loss of confidentiality or information.

8. **CONTRACTOR** shall return to the **COMMISSION** upon demand any and all Confidential Information entrusted to it by the **COMMISSION** pursuant to this Agreement (including any and all copies, abstracts, compilations or analyses thereof and memoranda related thereto or incorporating the Confidential Information) or the **CONTRACTOR** may request permission from the **COMMISSION**, which permission may be granted or denied in the **COMMISSION**'s sole discretion, to destroy all such Confidential Information and provide a certificate of destruction to the **COMMISSION** signed by the **CONTRACTOR**. The **CONTRACTOR** further agrees that neither itself nor its employees or representatives will copy, in whole or in part, any such Confidential Information without the prior written consent of the **COMMISSION**.

9. **CONTRACTOR** agrees that if they have had or will have an SSAE16 audit that they will comply with and abide by the findings of such audit to protect **COMMISSION** information.

Use of Unmanned Aircraft Systems: (remove if not applicable to this Agreement)

The **CONTRACTOR** shall not use or operate Unmanned Aircraft Systems (UAS) without the express written approval of the **COMMISSION**. Such approval shall be determined upon review and authorization of a written request from the **CONTRACTOR** by the **COMMISSION**'s Legal Department and UAS program managers. If approved, the **CONTRACTOR** shall execute a separate Authorization to Operate UAS or other applicable third-party agreement prepared by the **COMMISSION**'s Legal Department setting forth the necessary indemnification, release and insurance requirements. The Authorization shall define the requirements the **CONTRACTOR** must follow in order to operate UAS within **COMMISSION** right-of-way and property. All approved UAS operations shall be conducted using Small Unmanned Aircraft Rule (Part 107) (14 CFR Part 107) of the Federal Aviation Administration (FAA) Regulations.

Execution in Counterparts

This Agreement may be executed in counterparts, including counterparts transmitted electronically or by facsimile, each of which shall constitute an original of this Agreement.

Entire Agreement

This Agreement, together with any writings either attached as exhibits or incorporated by reference, constitutes the entire understanding between the parties and there are no other oral or extrinsic understandings of any kind between the parties.

Modification

This Agreement may be modified only by a writing signed by both parties.

[SIGNATURES ARE SET FORTH ON THE NEXT PAGE]

IN WITNESS WHEREOF, the Pennsylvania Turnpike Commission and **(Contractor Name)** have executed this Agreement by their duly authorized officers on the date written above.

ATTEST:

PENNSYLVANIA TURNPIKE COMMISSION

_____	_____	_____	_____
Ann Louise Edmunds	Date	Leslie S. Richards	Date
Assistant Secretary-Treasurer		Chair	

APPROVED AS TO FORM AND LEGALITY:

_____	_____	_____	_____
Albert C. Peters II	Date	Pennsylvania Attorney General	Date
General Litigation & Contracts Counsel			

ATTEST: **(Contractor Name)**

Signature_____	_____	Signature_____	_____
	Date		Date

Name_____	Name_____
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Title_____	Title_____
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Federal Tax ID No. _____

CONTRACTOR INTEGRITY PROVISIONS

It is essential that those who seek to contract with the Pennsylvania Turnpike Commission (“Commission”) observe high standards of honesty and integrity. They must conduct themselves in a manner that fosters public confidence in the integrity of the Commission contracting and procurement process.

I. DEFINITIONS. For purposes of these Contractor Integrity Provisions, the following terms shall have the meanings found in this Section:

- a. “Affiliate”** means two or more entities where (a) a parent entity owns more than fifty percent of the voting stock of each of the entities; or (b) a common shareholder or group of shareholders owns more than fifty percent of the voting stock of each of the entities; or (c) the entities have a common proprietor or general partner.
- b. “Consent”** means written permission signed by a duly authorized officer or employee of the Commission, provided that where the material facts have been disclosed, in writing, by prequalification, bid, proposal, or contractual terms, the Commission shall be deemed to have consented by virtue of the execution of this contract.
- c. “Contractor”** means the individual or entity, that has entered into this contract with the Commission, and “Contractor Related Parties” means any affiliates of the Contractor and the Contractor’s executive officers, Pennsylvania officers and directors, or owners of 5% or more interest in the Contractor
- d. “Financial Interest”** means either:
 - i. Ownership of more than a five percent interest in any business; or
 - ii. Holding a position as an officer, director, trustee, partner, employee, or holding any position of management.
- e. “Gratuity”** means tendering, giving, or providing anything of monetary value including, but not limited to, cash, travel, entertainment, gifts, meals, lodging, loans, subscriptions, advances, deposits of money, services, employment, or contracts of any kind. See Commission Policy 3.10, Code of Conduct.
- f. “Non-bid Basis”** means a contract awarded or executed by the Commission with Contractor without seeking bids or proposals from any other potential bidder or offeror.

II. In furtherance of this policy, Contractor agrees to the following:

- 1.** Contractor shall maintain the highest standards of honesty and integrity during the performance of this contract and shall take no action in violation of state or federal laws or regulations or any other applicable laws or regulations, or other requirements applicable to Contractor or that govern contracting or procurement with the Commission.

2. Contractor shall establish and implement a written business integrity policy, which includes, at a minimum, the requirements of these provisions as they relate to Contractor activity with the Commission and Commission employees and which is made known to all Contractor employees. Posting these Contractor Integrity Provisions conspicuously in easily-accessible and well-lighted places customarily frequented by employees and at or near where the contract services are performed shall satisfy this requirement.
3. Contractor, its affiliates, agents, employees and anyone in privity with Contractor shall not accept, agree to give, offer, confer, or agree to confer or promise to confer, directly or indirectly, any gratuity or pecuniary benefit to any person, or to influence or attempt to influence any person in violation of the Public Official and Employees Ethics Act, 65 Pa.C.S. §§1101 et seq.; the State Adverse Interest Act, 71 P.S. §776.1 et seq.; Commission Policy 3.10, Code of Conduct or in violation of any other federal or state law in connection with performance of work under this contract, except as provided in this contract.
4. Contractor shall not have a financial interest in any other contractor, subcontractor, or supplier providing services, labor, or material under this contract, unless the financial interest is disclosed to the Commission in writing and the Commission consents to Contractor's financial interest prior to Commission execution of the contract. Contractor shall disclose the financial interest to the Commission at the time of bid or proposal submission, or if no bids or proposals are solicited, no later than Contractor's submission of the contract signed by Contractor.
5. Contractor certifies to the best of its knowledge and belief that within the last five (5) years Contractor or Contractor Related Entities have not:
 - a. been indicted or convicted of a crime involving moral turpitude or business honesty or integrity in any jurisdiction;
 - b. been suspended, debarred or otherwise disqualified from entering into any contract with any governmental agency;
 - c. had any business license or professional license suspended or revoked;
 - d. had any sanction or finding of fact imposed as a result of a judicial or administrative proceeding related to fraud, extortion, bribery, bid rigging, embezzlement, misrepresentation or anti-trust; and
 - e. been, and is not currently, the subject of a criminal investigation by any federal, state or local prosecuting or investigative agency and/or civil anti-trust investigation by any federal, state or local prosecuting or investigative agency.

If Contractor cannot so certify to the above, then it must submit along with its bid, proposal or contract a written explanation of why such certification cannot be made and the Commission will determine whether a contract may be entered into with the Contractor. The Contractor's obligation pursuant to this certification is ongoing from and after the effective date of the contract through the termination date thereof. Accordingly, the Contractor shall have an obligation to immediately notify the Commission in writing if at any time during the term of the contract it becomes aware of any event which would cause the Contractor's certification or explanation to change. Contractor acknowledges that the

Commission may, in its sole discretion, terminate the contract for cause if it learns that any of the certifications made herein are currently false due to intervening factual circumstances or were false or should have been known to be false when entering into the contract.

6. Contractor shall comply with the requirements of the Lobbying Disclosure Act (65 Pa.C.S. §13A01 et seq.) regardless of the method of award. If this contract was awarded on a Non-bid Basis, Contractor must also comply with the requirements of the Section 1641 of the Pennsylvania Election Code (25 P.S. §3260a).
7. When Contractor has reason to believe that any breach of ethical standards as set forth in law, Commission Policy 3.10, Code of Conduct, or these Contractor Integrity Provisions has occurred or may occur, including but not limited to contact by a Commission officer or employee which, if acted upon, would violate such ethical standards, Contractor shall immediately notify the Commission contracting officer or the Chief Compliance Officer in writing.
8. Contractor, by submission of its bid or proposal and/or execution of this contract and by the submission of any bills, invoices or requests for payment pursuant to the contract, certifies and represents that it has not violated any of these Contractor Integrity Provisions in connection with the submission of the bid or proposal, during any contract negotiations or during the term of the contract, to include any extensions thereof. Contractor shall immediately notify the Commission in writing of any actions for occurrences that would result in a violation of these Contractor Integrity Provisions. Contractor agrees to reimburse the Commission for the reasonable costs of investigation incurred by the Chief Compliance Officer for investigations of the Contractor's compliance with the terms of this or any other agreement between the Contractor and the Commission that results in the suspension or debarment of the Contractor. Contractor shall not be responsible for investigative costs for investigations that do not result in the Contractor's suspension or debarment.
9. Contractor shall cooperate with the Chief Compliance Officer in investigating any alleged Commission agency or employee breach of ethical standards and any alleged Contractor non-compliance with these Contractor Integrity Provisions. Contractor agrees to make identified Contractor employees available for interviews at reasonable times and places. Contractor, upon the inquiry or request of the Chief Compliance Officer, shall provide, or if appropriate, make promptly available for inspection or copying, any information of any type or form deemed relevant by the Chief Compliance Officer to Contractor's integrity and compliance with these provisions. Such information may include, but shall not be limited to, Contractor's business or financial records, documents or files of any type or form that refer to or concern this contract. Contractor shall incorporate this paragraph in any agreement, contract or subcontract it enters into in the course of the performance of this contract/agreement solely for the purpose of obtaining subcontractor compliance with this provision. The incorporation of this provision in a subcontract shall not create privity of contract between the Commission and any such subcontractor, and no third party beneficiaries shall be created thereby.
10. For violation of any of these Contractor Integrity Provisions, the Commission may terminate this and any other contract with Contractor, claim liquidated damages in an

amount equal to the value of anything received in breach of these Provisions, claim damages for all additional costs and expenses incurred in obtaining another contractor to complete performance under this contract, and debar and suspend Contractor from doing business with the Commonwealth. These rights and remedies are cumulative, and the use or non-use of any one shall not preclude the use of all or any other. These rights and remedies are in addition to those the Commission may have under law, statute, regulation, or otherwise.

Proposer Questions		Pennsylvania Turnpike Commission (PTC)			
Proposer Name:					
#	Page	Section	Section Description	Proposer Question	Commission Response
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					

**APPENDIX C – PROPOSAL COVER SHEET
 Pennsylvania Turnpike Commission
 Truck Parking Management System**

RFP# 19-10480-8386

Enclosed in three separately sealed submittals is the proposal for the Proposer identified below for the above referenced RFP:

Proposer Information:	
Proposer Company Name	
Proposer Mailing Address	
Proposer Website	
Proposer Contact Person/Title	
Contact Person's Phone Number	
Contact Person's Fax Number	
Contact Person's Email Address	
Proposer Federal ID Number	
Location of Headquarters	
Location of Office(s) Performing the Work	
Listing of all Pennsylvania Offices and Total Number of Pennsylvania Employees	

Submittals Enclosed and Separately Sealed:

<input type="checkbox"/> Technical Submittal <input type="checkbox"/> Diverse Business Participation Submittal <input type="checkbox"/> Cost Submittal
Signature
Signature of an official authorized to bind the Proposer to the provisions contained in the Proposer's proposal: _____
Print Name
Title

An official authorized to bind the Proposer to its provisions must sign the proposal. If the official signs this Proposal Cover Sheet and the Proposal Cover Sheet is attached to the proposal, the requirement will be met.

LOBBYING CERTIFICATION FORM

Certification for Contracts, Grants, Loans, and Cooperative Agreements

The undersigned certifies, to the best of his or her knowledge and belief, that:

No federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employe of any agency, a member of Congress, an officer or employe of Congress, or an employe of a member of Congress in connection with the awarding of any federal contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any federal contract, grant, loan, or cooperative agreement.

If any funds other than federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employe of any agency, a member of Congress, an officer or employe of Congress, or an employe of a member of Congress in connection with this federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure of Lobbying Activities," in accordance with its instructions.

The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed under Section 1352, Title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for such failure.

SIGNATURE: _____

TITLE: _____

DATE: _____

DISCLOSURE OF LOBBYING ACTIVITIES

Complete this form to disclose lobbying activities pursuant to 31 U.S.C. 1352
(See reverse for public burden disclosure)

Type of Federal Action: a. contract Grant cooperative agreement loan loan guarantee loan insurance	Status of Federal Action: a. bid/offer/application initial award post-award	Report Type: a. initial filing material change For Material Change Only: year _____ quarter _____ date of last report _____	
Name and Address of Reporting Entity: Prime _____ Subawardee Tier _____ <i>(if known)</i> Congressional District, <i>if known</i> : _____	If Reporting Entity in No. 4 is Subawardee, Enter Name and Address of Prime: Congressional District, <i>if known</i> : _____		
Federal Department/Agency:	Federal Program Name/Description: CFDA Number, if applicable: _____		
Federal Action Number, if known:	Award Amount, if known: \$ _____		
a. Name and Address of Lobbying Registrant (if individual, last name, first name, MI):	Individual Performing Services (including address if different from 10a) (last name, first name, MI)		
11	Information requested through this form is authorized by title 31 U.S.C., section 1352. This disclosure of lobbying activities is a material representation of fact upon which reliance was placed by the tier above when this transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to the Congress semi-annually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.	Signature: _____ Print Name: _____ Title: _____ Telephone No.: _____ Date: _____	
Federal Use Only		Authorized for Local Reproduction Standard Form - LLL	

INSTRUCTIONS FOR COMPLETION OF SF-LLL, DISCLOSURE OF LOBBYING ACTIVITIES

This disclosure form shall be completed by the reporting entity, whether subawardee or prime Federal recipient, at the initiation or receipt of a covered Federal action, or a material change to a previous filing, pursuant to Title 31 U.S.C. section 1352. The filing of a form is required for each payment or agreement to make a payment to any lobbying entity for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with a covered Federal action. Complete all items that apply for both the initial filing and material change report. Refer to the implementing guidance published by the Office of Management and Budget for additional information.

Identify the type of covered Federal action for which lobbying activity is and/or has been secured to influence the outcome of a covered Federal action.

Identify the status of the covered Federal action.

Identify the appropriate classification of this report. If this is a follow-up report caused by a material change to the information previously reported, enter the year and quarter in which the change occurred. Enter the date of the last previously submitted report by this reporting entity for this covered Federal action.

Enter the full name, address, city, State, and zip code of the reporting entity. Include Congressional District, if known. Check the appropriate classification of the reporting entity that designates if it is, or expects to be, a prime or subaward recipient. Identify the tier of the subawardee, e.g., the first subawardee of the prime is the 1st tier. Subawards include, but are not limited to, subcontracts, subgrants, and contract awards under grants.

If the organization filing the report in item 4 checks "Subawardee," then enter the full name, address, city, State, and zip code of the prime Federal recipient. Include Congressional District, if known.

Enter the name of the Federal agency making the award or loan commitment. Include at least one organizational level below agency name, if known. For example, Department of Transportation, United States Coast Guard.

Enter the Federal program name or description for the covered Federal action (item 1). If known, enter the full Catalog of Federal Domestic Assistance (CFDA) number for grants, cooperative agreements, loans, and loan commitments.

Enter the most appropriate Federal identifying number available for the Federal action identified in item 1 (e.g., Request for Proposal (RFP) number; Invitation for Bid (IFB) number; grant announcement number; the contract, grant, or loan award number; the application/proposal control number assigned by the Federal agency). Include prefixes, e.g., "RFP-DE-90-001."

For a covered Federal action where there has been an award or loan commitment by the Federal agency, enter the Federal amount of the award/loan commitment for the prime entity identified in item 4 or 5.

(a) Enter the full name, address, city, State, and zip code of the lobbying registrant under the Lobbying Disclosure Act of 1995 engaged by the reporting entity identified in item 4 to influence the covered Federal action.

(b) Enter the full name(s) of the individual(s) performing services, and include full address if different from 10(a). Enter the Last Name, First Name, and Middle Initial (MI).

The certifying official shall sign and date the form, print his/her name, title, and telephone number.

According to the Paperwork Reduction Act, as amended, no persons are required to respond to a collection of information unless it displays a valid OMB Control Number. The valid OMB control number for this information collection is OMB No. 0348-0046. Public reporting burden for this collection of information is estimated to average 10 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0046), Washington, DC 20503.



APPENDIX E – RFP 19-10480-8386
COMMISSION SECURITY REQUIREMENTS
 Revised: 06/01/19

General Security Requirements

Vendor shall supply all hosting equipment (hardware and software) required for performance of the contract and ensure maintenance and replacement as necessary to maintain compliance with the Service Level Agreement(s).
The vendor shall warrant all system/software to be delivered free of malware or other malicious or destructive code.
In the event of adverse risk findings through an audit or assessment, the vendor shall cooperate with the Commission in remediating any risks to the system, including complying with requests to temporarily take the system offline or otherwise limit access to the system during remediation if warranted.
Vendors must have a plan for compliance with all applicable breach notification laws, including Pennsylvania’s Breach of Personal Information Notification.
The Commission must be notified in writing within 72 hours of the earliest indication or report of a potential breach or unintended disclosure of confidential information.
Incident response actions that may affect confidential information must be conducted quickly and with ample resources. Vendor must hire a professional third-party incident response team if its inhouse resources do not have sufficient skill or availability.
The Commission shall have the right to view all incident response evidence, reports, communications, and related materials, affecting Commission systems, upon request.
If requested by the Commission, or if required by law, the vendor, at its own cost and expense, shall notify in writing all persons affected by the incident.
The vendor is responsible for hardening all devices to run only the services required to support the application. All unnecessary services must be disabled (for example, UPnP, SLP, etc.).
If Commission user service disruptions are expected, the change must be approved by the Change Review Board (CRB) before implementation.
No generic user accounts for shared resources will be permitted.
Audit logs must be implemented for all systems. All actual or attempted violations of system security must generate an audit log. Audit logs must be secured against unauthorized access or modification.
All account credentials (username/password) must be encrypted during transmission.
All administrator account passwords and SNMP community strings must be changed from the manufacturer’s default values to a hardened value.



APPENDIX E – RFP 19-10480-8386
COMMISSION SECURITY REQUIREMENTS
Revised: 06/01/19

Hosted/Cloud-Based Security Requirements

The Commission’s data must be located and remain within the continental United States.
Vendor shall use commercially reasonable resources and efforts to maintain adequate internet connection bandwidth, service capacity, and ensure its data center and/or other vendors performing subcontracted services have industry standard physical, technical, human, and administrative controls.
Vendor shall house all services and equipment in an operational environment that meets industry standards including climate control, fire and safety hazard detection, redundancy, electrical needs, and physical security.
If Commission employee access is required, then the latest version of ADFS (Active Directory Federated Services), using the latest version of SAML, must be used for authentication and authorization, and the Identity Source must be either the Commission’s on-premise ADFS installation or the Commission’s Azure AD instance.
When SAML authentication is used for cloud-hosted systems, the vendor must use Provider-side Initiated authentication.
All cloud-based/hosted systems using HTTPS, or any other protocol using SSL/TLS, must use TLS 1.2 or later with a key size no smaller than 2048 bits.
For public-facing systems, the vendor shall utilize a third-party certificate provider who is a recognized and trusted authority in the industry.
The vendor is responsible for sending the Commission system/network vulnerability scan results upon request.
The vendor will supply firewall and IPS logs for malicious intrusion and access attempts into hosted Commission systems upon request.
Vendors must have, and upon request by the Commission, shall provide copies of its information security policies that cover the following elements: <ul style="list-style-type: none"> - Data classification and privacy - Security training and awareness - Systems administration, patching, and configuration - Application development and code review - Incident response - Workstation management, mobile devices, and antivirus - Backups, disaster recovery, and business continuity - Regular audits and testing - Requirements for third-party business partners and contractors - Compliance with information security or privacy laws, regulations, or standards
The vendor shall allow the Commission, or an agreed upon third party, to perform security assessments, vulnerability assessments, or audits of systems that contain Commission data.
For systems hosted off the Commission’s network, an industry-accepted endpoint protection solution must be operated on all hosting servers.



APPENDIX E – RFP 19-10480-8386
COMMISSION SECURITY REQUIREMENTS
Revised: 06/01/19

On-Prem/Physically-Connected Security Requirements

The Commission’s IT Security Team must be allowed to scan, for security vulnerabilities, any new equipment and/or changes to existing equipment before implementation.
The Commission’s IT Security team must be given administrator-level access to all installed equipment for incident response and security assessment.
All Microsoft Windows-based systems, connected to the Commission’s network, will be joined to the Commission’s Active Directory domain and will be patched by the Commission’s IT staff on a monthly-basis at a minimum.
The vendor is responsible for updating all non-Windows systems, not operated or administered by the Commission, to the vendors’ latest recommended level.
If remote access is needed, the vendor must use HorizonView. If using VPN for remote access, a Commission owned, and managed device is required.
If local connectivity to the Commission’s network is needed, a Commission-owned and managed device is required. Vendor-owned devices are not permitted to be connected to the network.
The vendor’s system/software must co-exist with all industry accepted endpoint software with no exceptions.
The vendor must provide the necessary directory and file exclusions to allow the system/software to operate as intended.

**APPENDIX C OF
DESIGNATED SPECIAL PROVISION 8 (DSP8)**

**REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS**

- I. General
- II. Nondiscrimination
- III. Nonsegregated Facilities
- IV. Davis-Bacon and Related Act Provisions
- V. Contract Work Hours and Safety Standards Act Provisions
- VI. Subletting or Assigning the Contract
- VII. Safety: Accident Prevention
- VIII. False Statements Concerning Highway Projects
- IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
- X. Compliance with Governmentwide Suspension and Debarment Requirements
- XI. Certification Regarding Use of Contract Funds for Lobbying

ATTACHMENTS

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under Title 23 (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services). The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in bid proposal or request for proposal documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors.

II. NONDISCRIMINATION

The provisions of this section related to 23 CFR Part 230 are applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR 60, 29 CFR 1625-1627, Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding \$10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR 60, and 29 CFR 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), and Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR 230, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

1. Equal Employment Opportunity: Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630, 29 CFR 1625-1627, 41 CFR 60 and 49 CFR 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract.

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

2. EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established there under. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors and suppliers and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

10. Assurance Required by 49 CFR 26.13(b):

a. The requirements of 49 CFR Part 26 and the State DOT's U.S. DOT-approved DBE program are incorporated by reference.

b. The contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the contracting agency deems appropriate.

11. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women;

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form FHWA-1391. The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more.

The contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location, under the contractor's control, where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding \$2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size). The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. Contracting agencies may elect to apply these requirements to other projects.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 "Contract provisions and related matters" with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

1. Minimum wages

a. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.d. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b. (1) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is utilized in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(3) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. The Wage and Hour Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

c. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

d. If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

2. Withholding

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract, or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the contracting agency may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

3. Payrolls and basic records

a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably

anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

b. (1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g. , the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH–347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency..

(2) Each payroll submitted shall be accompanied by a “Statement of Compliance,” signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(i) That the payroll for the payroll period contains the information required to be provided under §5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH–347 shall satisfy the requirement for submission of the “Statement of Compliance” required by paragraph 3.b.(2) of this section.

(4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the FHWA may, after written notice to the contractor, the contracting agency or the State DOT, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and trainees

a. Apprentices (programs of the USDOL).

Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

b. Trainees (programs of the USDOL).

Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration.

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee

performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

d. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

6. Subcontracts. The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

7. Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

9. Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of eligibility.

a. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

c. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

The following clauses apply to any Federal-aid construction contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (1.) of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1.) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1.) of this section.

3. Withholding for unpaid wages and liquidated damages. The FHWA or the contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2.) of this section.

4. Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1.) through (4.) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1.) through (4.) of this section.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term "perform work with its own organization" refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions:

- (1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;
- (2) the prime contractor remains responsible for the quality of the work of the leased employees;
- (3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and
- (4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract.

2. The contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

5. The 30% self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements.

VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C.3704).

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

By submission of this bid/proposal or the execution of this contract, or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any person who is or will be utilized in the performance of this contract is not prohibited from receiving an award due to a violation of Section 508 of the Clean Water Act or Section 306 of the Clean Air Act.
2. That the contractor agrees to include or cause to be included the requirements of paragraph (1) of this Section X in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements.

X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost \$25,000 or more – as defined in 2 CFR Parts 180 and 1200.

1. Instructions for Certification – First Tier Participants:

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default.

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

* * * * *

2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency;

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

2. Instructions for Certification - Lower Tier Participants:

(Applicable to all subcontracts, purchase orders and other lower tier transactions requiring prior FHWA approval or estimated to cost \$25,000 or more - 2 CFR Parts 180 and 1200)

a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its

principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

* * * * *

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

* * * * *

XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed \$100,000 (49 CFR 20).

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

ATTACHMENT A - EMPLOYMENT AND MATERIALS PREFERENCE FOR APPALACHIAN DEVELOPMENT HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS ROAD CONTRACTS

This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

- a. To the extent that qualified persons regularly residing in the area are not available.
- b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.
- c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.

Title 23 - Highways

Volume: 1

Date: 2013-04-01

Original Date: 2013-04-01

Title: Section 635.410 - Buy America requirements.

Context: Title 23 - Highways. CHAPTER I - FEDERAL HIGHWAY ADMINISTRATION, DEPARTMENT OF TRANSPORTATION. SUBCHAPTER G - ENGINEERING AND TRAFFIC OPERATIONS. PART 635 - CONSTRUCTION AND MAINTENANCE. Subpart D - General Material Requirements.

§ 635.410 Buy America requirements.

(a) The provisions of this section shall prevail and be given precedence over any requirements of this subpart which are contrary to this section. However, nothing in this section shall be construed to be contrary to the requirements of § 635.409(a) of this subpart.

(b) No Federal-aid highway construction project is to be authorized for advertisement or otherwise authorized to proceed unless at least one of the following requirements is met:

(1) The project either: (i) Includes no permanently incorporated steel or iron materials, or (ii) if steel or iron materials are to be used, all manufacturing processes, including application of a coating, for these materials must occur in the United States. Coating includes all processes which protect or enhance the value of the material to which the coating is applied.

(2) The State has standard contract provisions that require the use of domestic materials and products, including steel and iron materials, to the same or greater extent as the provisions set forth in this section.

(3) The State elects to include alternate bid provisions for foreign and domestic steel and iron materials which comply with the following requirements. Any procedure for obtaining alternate bids based on furnishing foreign steel and iron materials which is acceptable to the Division Administrator may be used. The contract provisions must (i) require all bidders to submit a bid based on furnishing domestic steel and iron materials, and (ii) clearly state that the contract will be awarded to the bidder who submits the lowest total bid based on furnishing domestic steel and iron materials unless such total bid exceeds the lowest total bid based on furnishing foreign steel and iron materials by more than 25 percent.

(4) When steel and iron materials are used in a project, the requirements of this section do not prevent a minimal use of foreign steel and iron materials, if the cost of such materials used does not exceed one-tenth of one percent (0.1 percent) of the total contract cost or \$2,500, whichever is greater. For purposes of this paragraph, the cost is that shown to be the value of the steel and iron products as they are delivered to the project.

(c)(1) A State may request a waiver of the provisions of this section if;

(i) The application of those provisions would be inconsistent with the public interest; or

(ii) Steel and iron materials/products are not produced in the United States in sufficient and reasonably available quantities which are of a satisfactory quality.

(2) A request for waiver, accompanied by supporting information, must be submitted in writing to the Regional Federal Highway Administrator (RFHWA) through the FHWA Division Administrator. A request must be submitted sufficiently in advance of the need for the waiver in order to allow time for proper review and action on the request. The RFHWA will have approval authority on the request.

(3) Requests for waivers may be made for specific projects, or for certain materials or products in specific geographic areas, or for combinations of both, depending on the circumstances.

(4) The denial of the request by the RFHWA may be appealed by the State to the Federal Highway Administrator (Administrator), whose action on the request shall be considered administratively final.

(5) A request for a waiver which involves nationwide public interest or availability issues or more than one FHWA region may be submitted by the RFHWA to the Administrator for action.

(6) A request for waiver and an appeal from a denial of a request must include facts and justification to support the granting of the waiver. The FHWA response to a request or appeal will be in writing and made

available to the public upon request. Any request for a nationwide waiver and FHWA's action on such a request may be published in the **Federal Register** for public comment.

(7) In determining whether the waivers described in paragraph (c)(1) of this section will be granted, the FHWA will consider all appropriate factors including, but not limited to, cost, administrative burden, and delay that would be imposed if the provision were not waived.

(d) Standard State and Federal-aid contract procedures may be used to assure compliance with the requirements of this section.

[48 FR 53104, Nov. 25, 1983, as amended at 49 FR 18821, May 3, 1984; 58 FR 38975, July 21, 1993]

"General Decision Number: PA20190006 07/26/2019

Superseded General Decision Number: PA20180014

State: Pennsylvania

Construction Types: Heavy and Highway

Counties: Adams, Berks, Bradford, Carbon, Columbia, Cumberland, Dauphin, Juniata, Lackawanna, Lancaster, Lebanon, Lehigh, Luzerne, Lycoming, Monroe, Montour, Northampton, Northumberland, Perry, Pike, Schuylkill, Snyder, Sullivan, Susquehanna, Tioga, Union, Wayne, Wyoming and York Counties in Pennsylvania.

HEAVY AND HIGHWAY CONSTRUCTION PROJECTS (Excluding Sewer Grouting Projects and Excluding Sewage and Water Treatment Plant Projects)

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.60 for calendar year 2019 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.60 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2019. If this contract is covered by the EO and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must pay workers in that classification at least the wage rate determined through the conformance process set forth in 29 CFR 5.5(a)(1)(ii) (or the EO minimum wage rate, if it is higher than the conformed wage rate). The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the

Contents:

Carbon, Cumberland, Dauphin, Lancaster, Lebanon, Lehigh - Sheets 1 - 18

Chester, Montgomery - Sheets 19 - 40

Fulton - Sheets 41 - 64

federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/04/2019
1	05/03/2019
2	06/07/2019
3	06/14/2019
4	07/05/2019
5	07/26/2019

BOIL0013-003 03/01/2018

	Rates	Fringes
BOILERMAKER.....	\$ 45.89	33.39

CARP0167-004 05/01/2019

BERKS, CARBON, LANCASTER, LEHIGH and NORTHAMPTON COUNTIES

	Rates	Fringes
CARPENTER.....	\$ 35.29	25.54

CARP0219-007 05/01/2019

CARBON (Townships: East Penn, Lower Towamensing, Mahoning, Franklin, Towamensing, Penn Forest. Everything south of Route 903 and east to the Kidder Township Line. Boroughs: Hauto, Nesquehoning, Lansford, Summit Hill, Jim Thorpe, Weissport, Bownmanstown, Palmerton, Lehighton, and Parryville) , LEHIGH AND NORTHAMPTON COUNTIES

Rates	Fringes
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MILLWRIGHT.....\$ 44.14 29.79

CARP0219-008 05/01/2019

BERKS and LANCASTER COUNTIES

Rates Fringes

MILLWRIGHT.....\$ 40.44 18.48

CARP0441-005 05/01/2018

BERKS, CARBON, LANCASTER, LEHIGH and NORTHAMPTON COUNTIES

Rates Fringes

PILEDRIVERMAN.....\$ 43.45 34.47

CARP0443-002 05/01/2019

ADAMS, BRADFORD, CARBON (Banks, Lausanne, Lehigh, Packer, Kidder Twps., and part of Penn Forest Township north of Route 903) COLUMBIA, CUMBERLAND, DAUPHIN, JUNIATA, LANCASTER, LEBANON, LUZERNE (lower part of) MONROE, MONTOUR, NORTHUMBERLAND, PERRY, PIKE, SCHUYLKILL, SNYDER, SULLIVAN, SUSQUEHANNA, TIOGA, UNION, WAYNE, WYOMING, YORK (New Cumberland Army Depot and Harrisburg State Airport) COUNTIES

Rates Fringes

MILLWRIGHT.....\$ 35.18 18.82

CARP2274-003 05/01/2019

Adams, Bradford, Columbia, Cumberland, Dauphin, Juniata, Lackawanna, Lebanon, Luzerne, Lycoming, Monroe, Montour, Northumberland, Perry, Pike, Schuylkill, Snyder, Sullivan, Susquehanna, Tioga, Union, Wayne, Wyoming and York

	Rates	Fringes
CARPENTER.....	\$ 31.51	16.55
PILEDRIVERMAN.....	\$ 31.51	16.55

ELEC0126-001 05/28/2018

ADAMS, BERKS, CUMBERLAND, DAUPHIN, JUNIATA, LANCASTER, LEBANON,
LEHIGH, NORTHAMPTON, PERRY AND YORK COUNTIES

	Rates	Fringes
Line Construction:		
Cable Splicer.....	\$ 45.25	29.25%+11.25
Groundman.....	\$ 27.15	29.25%+11.25
Lineman.....	\$ 45.25	29.25%+11.25
Truck Driver.....	\$ 29.41	29.25%+11.25
Winch Truck Operator.....	\$ 31.68	29.25%+11.25

ELEC1319-001 09/02/2018

BRADFORD, CARBON, COLUMBIA, LACKAWANNA, LUZERNE, LYCOMING,
MONROE, MONTOUR, NORTHUMBERLAND, PIKE, SCHUYLKILL, SNYDER,
SULLIVAN, SUSQUEHANNA, TIOGA, UNION, WAYNE, AND WYOMING COUNTIES

	Rates	Fringes
Line Construction:		
Equipment Operator.....	\$ 56.43	19.84
Groundmen.....	\$ 34.99	11.28
Linemen.....	\$ 56.43	22.84
Truck Driver.....	\$ 36.68	11.41

* ENGI0542-004 05/01/2019

	Rates	Fringes
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Power equipment operators:

(HIGHWAY CONSTRUCTION AND

WATER LINES CONSTRUCTION

(OFF PLANT SITE))

GROUP 1.....	\$ 36.02	23.78
GROUP 1a.....	\$ 38.27	24.46
GROUP 2.....	\$ 34.84	23.44
GROUP 3.....	\$ 34.14	23.24
GROUP 4.....	\$ 33.68	23.12
GROUP 5.....	\$ 33.18	22.96
GROUP 6.....	\$ 36.25	23.85
GROUP 6a.....	\$ 38.50	24.51

BOOM LENGTH PAY:

On all machines with booms, jibs, masts and leads 100 ft. and over, twenty five cents (\$0.25) per hour additional will be paid for each increment of 25 ft. over 100 ft. On machines with booms (including jibs, masts and leads, etc.), 200 ft. and over, two (2) Operating Engineers shall be required.

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1 - Pile drivers, all types of cranes, all types of backhoes, draglines, keystones, all types of shovels, derricks, trench shovels, trenching machines, paver (blacktop and concrete), gradalls, all front end loaders, tandem scrapers, pippin types backhoes, boat captains, batch plant with mixer, drill self contained (drill-master type), CMI Autograde, milling machine, vemeer saw, conveyor loader (euclid type) scraper and tournapulls, bulldozers and tractors, concrete pumps, motor patrols, mechanic welders, log skidder, side boom, bobcat type (with attachments), boring machines including directional boring machines, chipper with boom, hydro ax, machines similar to the above including remote control equipment.

GROUP 1a: Crawler backhoes and Crawler gradalls over one cubic yard factory rating; Hydraulic backhoes over one cubic yard factory rating; All types of cranes 15 ton and over factory rating; Single person operation truck cranes 15 ton and over factory rating; Cherry picker type

machinery and equipment 15 ton and over factory rating; Machines similar to above, including remote control equipment; Equipment in this Wage Group that does not require an oiler.

GROUP 2 - Spreaders, asphalt plant engineers, rollers (high grade finishing), machine similar to above, including remote control equipment, and forklifts 20ft and over.

GROUP 3 - Welding machine, well points, compressors, pump heaters, farm tractors, form line graders, ditch witch type trencher, road finishing machines, concrete breaking machines, rollers, miscellaneous equipment operator, seaman pulverizing mixer, power broom, seeding spreader, tireman - (for power equipment) conveyors, loaders other than EUC type, conveyors, driller second class, machines similar to the above including remote control equipment, and forklift under 20 ft.

GROUP 4 - Fireman and grease truck

GROUP 5 - Oilers and deck hands

GROUP 6 - All machines with booms (including jibs, masts, leads, etc.) 100 ft. and over.

GROUP 6a: All machines with Booms (including Jibs, Masts, Leads, etc.) 100 feet 15 ton and over factory rating; Machines similar to above, including remote control equipment; Equipment in this Wage Group that does not require an oiler.

TOXIC/HAZARDOUS WAST REMOVAL

Add 20 per cent to basic hourly rate for all classifications

* ENGI0542-022 05/01/2017

Rates Fringes

Power equipment operators:

(HEAVY CONSTRUCTION:)

GROUP 1.....	\$ 33.80	23.16+A
GROUP 1a.....	\$ 36.05	23.82+A
GROUP 2.....	\$ 33.52	23.07+A
GROUP 2a.....	\$ 35.78	23.73+A
GROUP 3.....	\$ 30.60	22.21+A
GROUP 4.....	\$ 29.47	21.87+A
GROUP 5.....	\$ 29.02	21.74+A
GROUP 6.....	\$ 28.14	21.48+A

HEAVY CONSTRUCTION:

FOOTNOTE:

A: PAID HOLIDAYS: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day, the employee works the day before and the day after the holiday.

BOOM LENGTH PAY:

On all machines with booms, jibs, masts and leads 100 ft. from ground up, fifty (\$0.50) per hour additional will be paid for each increment of 25 ft. over 100 ft. On cranes with booms (including jibs, masts and leads, etc.) 200 ft. and over, two (2) operators shall be required, no Oilers will be required, with seventy five (\$0.75) in increments of 25 ft.

TOXIC/HAZARDOUS WASTE REMOVAL

Add 20 per cent to basic hourly rate for all classifications

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Machines doing hook work, any machine handling machinery, cable spinning machines, helicopters, machines similar to the above, including remote control equipment, all types of cranes, cableways, and draglines.

GROUP 1a: Machines doing hook work; Machines handling machinery; All types of cranes 15 ton and over factory

rating; Cable ways; Draglines 15 ton and over factory rating; High Rail/Burro Crane 15 ton and over factory rating; Rail Loader (Winch Boom Type) 15 ton and over factory rating; Machines similar to above, including remote control equipment; Equipment in this Wage Group that does not require an oiler.

GROUP 2: Backhoes, keystones, shovels, derricks, trench shovels, trenching machines, hoist with two towers, pavers 21E and over, overhead cranes, building hoists (double drum) gradalls, mucking machines in tunnels, front end loaders, tandem scrapers, pippin type backhoes, boat captains, batch plant operators concrete drills, self-contained rotary drills, fork lifts, 20ft, lift and over, scrapers, tournapulls, spreaders, bulldozers and tractors, rollers (high grade finishing), mechanic-welder, motor patrols, concrete pumps, grease truck, bob cat type (all attachments), boring machines including directional boring machines, hydro ax, side boom, vermeer saw, chipper with boom, machines similar to the above including remote control equipment

GROUP 2a: Crawler backhoes and crawler gradalls over one cubic yard factory rating; Hydraulic backhoes over one cubic yard factory rating; Equipment 15 ton and over factory rating; Machines similar to above, including remote control equipment; Equipment in this Wage Group that does not require an oiler.

GROUP 3: Conveyors, building hoist (single drum), high or low pressure boilers, drill operators, well drillers, asphalt plant engineers, ditch witch type trencher, second class driller, forklift truck under 20ft. lift, stump grinder, tireman (for power equipment), machines similar to above including remote control equipment.

GROUP 4: Welding machines, well points, compressors, pumps, heaters, farm tractors, form line graders, road finishing machines, concrete breaking machines, rollers, seaman pulverizing mixer, power boom, seeding spreader, chipper without boom, machines similar to the above including

remote control equipment.

GROUP 5: Fireman.

GROUP 6: Oilers and deck hands (personnel boats).

IRON0404-006 07/01/2019

ADAMS, BERKS, CUMBERLAND, DAUPHIN, JUANITA, LANCASTER, LEBANON,
LEHIGH, LYCOMING, MONTOUR, NORTHAMPTON, NORTHUMBERLAND, PERRY,
SCHUYLKILL, SNYDER, UNION and YORK COUNTIES

	Rates	Fringes
Ironworkers:.....	\$ 32.76	29.88

IRON0404-017 07/01/2019

BRADFORD, CARBON, COLUMBIA, LACKAWANNA, LUZERNE, MONROE, PIKE,
SULLIVAN, TIOGA, SUSQUEHANNA, WAYNE and WYOMING COUNTIES

	Rates	Fringes
IRONWORKER.....	\$ 32.76	29.88

LAB00158-001 05/01/2019

	Rates	Fringes
Laborers:		
GROUP 1.....	\$ 21.61	17.29
GROUP 2.....	\$ 28.23	17.29
GROUP 3.....	\$ 25.22	17.29
GROUP 4.....	\$ 25.57	17.29
GROUP 5.....	\$ 26.24	17.29
GROUP 6.....	\$ 25.66	17.29
GROUP 7.....	\$ 25.95	17.29
GROUP 8.....	\$ 26.43	17.29

LABORERS CLASSIFICATIONS

GROUP 1: Flag person

GROUP 2: Hazardous/Toxic/Asbestos Waste Handler, Lead Paint Handler

GROUP 3: concrete pitman, puddlers, highway guide rail right of way and property fence slab reinforcement placers, Laborers, landscaper, seeders, planters, magazine tenders, laser beam men for pipe laying and paving machines,, railroad trackman, signalman, asphalt rakers, asphalt tamper, lute or screed man, pneumatic and electric tool operators, jackmammers, paving breakers, concrete saws, whacker vibrator, chainsaw, highway concrete block layers, sheet hammer, pipe layers, Walk Behind Rollers, Walk Behind Trencher

GROUP 4: Caisson-open air below 8 feet, cofferdam open air below 8 feet where excavations for circular caissons and cofferdams 8 ft and below level of natural grade adjacent to starting point, form setters (road) wagon drill diamond point drill, gunite nozzle operators, walk behind rollers and concrete rubbers, blaster.

GROUP 5: Form Setter, Reinforced Steel Placer, Bonding Aligning and Securing and Burning and welding in Conjunction wth Rebar, and Concrete Surfacers.

FREE AIR TUNNELS AND ROCK SHAFTS

GROUP 6: Outside labers in conjunction with tunnels and rock shafts

GROUP 7: Chuck tenders, muckers, nippers, miners, inside laborers

GROUP 8: Miners, drillers, blasters, pneumatic shield operators, lining, spotting and timber workmen, rebar steel placer, bonding and securing, welders, and concrete

surfacers

PAIN0021-026 05/01/2018

ADAMS, CUMBERLAND, DAUPHIN, LANCASTER, PERRY, AND YORK COUNTIES

	Rates	Fringes
Painters:		
Bridge.....	\$ 31.80	14.23
Brush.....	\$ 23.92	14.23
Spray, Sandblast.....	\$ 26.05	14.23

PAIN0057-021 06/01/2018

JUNIATA COUNTY

	Rates	Fringes
Painters:		
Bridge, Towers.....	\$ 34.60	19.12
Commercial Brush & Roller...	\$ 28.00	19.12
Industrial Brush & Roller...	\$ 32.50	19.12
Spray.....	\$ 28.00	19.12

PAIN1021-001 05/01/2012

BERKS, CARBON, LEBANON, LEHIGH, NORTHAMPTON, AND MONROE COUNTIES

	Rates	Fringes
Painters:		
Bridge; Brush, Roller.....	\$ 30.85	14.80
Bridge; Spray.....	\$ 31.85	14.80
Brush and Roller.....	\$ 26.55	14.80
Spray and Sandblast.....	\$ 27.55	14.80

PAIN1021-002 05/01/2009

BRADFORD, COLUMBIA, LACKWANNA, LUZERNE, LYCOMING, MONTOUR,

NORTHUMBERLAND, PIKE, SCHUYLKILL, SNYDER, SULLIVAN,
SUSQUEHANNA, TIOGA, UNION, WAYNE, WYOMING COUNTIES

	Rates	Fringes
Painters:		
Bridge; Brush, Roller.....	\$ 25.60	12.05
Bridge; Spray.....	\$ 26.60	12.05
Brush and roller.....	\$ 22.75	12.05
Spray, Sandblast.....	\$ 23.75	12.05

PLAS0592-004 06/01/2018

MONROE COUNTY; (EXCEPT TOBYHANNA DEPOT)

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER...	\$ 33.43	12.30

PLAS0592-005 06/01/2018

COLUMBIA COUNTY

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER...	\$ 33.43	12.30

PLAS0592-017 05/01/2014

	Rates	Fringes
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CEMENT MASON/CONCRETE FINISHER

 BERKS (Northeastern part
 lying North of a line
 starting from the Southern
 boundary line of Lehigh
 County continuing through
 Huffs Church,
 Fredericksville, Dryville,
 Lyon Station, Kutztown,

Krumsville, and Stoney run
 in Berks County to the
 Lehigh County line),
 CARBON, LEHIGH,
 NORTHAMPTON (Northwest
 part including the towns
 of Walnutport, Bath, and
 Northampton) COUNTIES.....\$ 27.50 20.93

* PLAS0592-018 05/01/2019

	Rates	Fringes
Cement Mason/Concrete Finisher Adams, Lancaster and York Counties.....	\$ 29.90	21.35
PLASTERER Adams, Berks (Portions of), Lancaster, and Lebanon Counties.....	\$ 29.90	21.35

PLAS9592-002 05/01/2014

MONROE COUNTY (TOBYHANNA ARMY DEPOT)

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER...	\$ 31.23	10.00

TEAM0229-003 05/01/2018

	Rates	Fringes
TRUCK DRIVER (ADAMS, BERKS, CARBON, COLUMBIA, CUMBERLAND, DAUPHIN, JUNIATA, LACKAWANA, LANCASTER, LEBANON, LEHIGH, LUZERNE, LYCOMING, MONROE, MONTOUR, NORTHAMPTON, NORTHUMBERLAND, PERRY, PIKE, SCHUYKILL, SNYDER, SULLIVAN,		

SUSQUEHANNA, UNION, WAYNE,
WYOMING, AND YORK COUNTIES)

GROUP 1.....	\$ 35.32	0.00
GROUP 2.....	\$ 35.39	0.00
GROUP 3.....	\$ 35.88	0.00

Truck drivers: (BRADFORD AND
TIOGA COUNTIES)

GROUP 1.....	\$ 22.21	13.11
GROUP 2.....	\$ 22.28	13.11
GROUP 3.....	\$ 22.77	13.11

TRUCK DRIVERS CLASSIFICATIONS

GROUP 1: Flat Bed Truck (Single-Axle), Dump Trucks (Under 10 Yds Single Axle), Stake Body Trck (Single Axle), Dumpster (Single Axle)

GROUP 2: Dump Truck (Over 10 Yds), Asphalt Distributors, Transit Mix (Under 5 Yds), Transit Mix (Over 5 Yds.), Flat or Stake Body (Tandem), Fuel Truck A-Frame/Winch Trucks, Dry Batch Truck, Truck Mounted Sweeper and Vac Trucks, Buses, Dumpster (Tandem)

GROUP 3: Euclid-Type, Off Highway Equipment-Back or Double Bottom Dump Trucks (Over 20 Tons), Straddle Trucks, Pusher, Articulate Dumped Trucks, Low Boy Trailers, Semi Trailers

Water Tank, Sprinkler Trucks, Winch Trucks and Fuel Trucks shall be governed by the appropriate classification as listed above.

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any

solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example:
 PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this

classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage

determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION"

"General Decision Number: PA20190004 07/26/2019

Superseded General Decision Number: PA20180006

State: Pennsylvania

Construction Types: Heavy and Highway

Counties: Bucks, Chester, Delaware, Montgomery and Philadelphia Counties in Pennsylvania.

HEAVY AND HIGHWAY CONSTRUCTION PROJECTS

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.60 for calendar year 2019 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.60 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2019. If this contract is covered by the EO and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must pay workers in that classification at least the wage rate determined through the conformance process set forth in 29 CFR 5.5(a)(1)(ii) (or the EO minimum wage rate, if it is higher than the conformed wage rate). The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/04/2019
1	01/18/2019
2	03/08/2019
3	05/03/2019
4	05/10/2019
5	06/07/2019
6	06/14/2019
7	06/28/2019
8	07/05/2019
9	07/26/2019

BOIL0013-003 03/01/2018

	Rates	Fringes
BOILERMAKER.....	\$ 45.89	33.39

CARP0219-005 05/01/2019

	Rates	Fringes
MILLWRIGHT.....	\$ 46.60	31.79

CARP0255-006 05/01/2019

	Rates	Fringes
CARPENTER.....	\$ 48.16	27.69

FOOTNOTE:

A. PAID HOLIDAY: LABOR DAY

CARP0441-004 05/01/2018

	Rates	Fringes
PILEDRIVERMAN.....	\$ 43.45	34.47

 ELEC0098-001 04/29/2018

BUCKS COUNTY: Starting at the Delaware River and following the west limits of the Borough of Bristol, along the continuation of U.S. Highway 13 and under the Pennsylvania Railroad Bridge to Route 09113, north 09113 to Route 152, north along Route 152 to the Humeville Road, east on Humeville Road to Route 333, north on Route 344 to the junction of Spurs 281 and 252, continue north on Spur 252 to Route 09028, west on 09028 to Route 152, north on 152 to TR 232, north on TR 532 to Tr 113, north on TR 113 to TR 232 at Anchor Inn, northeast on TR 232 and continue northeast along Rounte 659 to Route 09060, west on 09060 to Route 402, north on 402 to the Borough line at the southwest corner of the Borough of New Hope. The Bouough of New Hpoe is excluded. Starting at the Delaware at the Delaware River and proceeding southwest along the Plumstead-Solebury and the Plumstead-Buckingham Township lines to Route 09064, northwest on 09064 to U.S. Highway 611 south on 611 to the spur of Route 270, northwest along the spur to Route 397, Southwest on 397 to Route 350, southeast on 350 to Route 395, southwest on 395 to Route 09060, southeast on 09069 to Route 09041 southwest on 09041 to the Montgomery County line.

DELAWARE COUNTY: That portion east of a line following State Highway 320 from Montgomery County to Maple, then along the Springfield Road to Saxer Ave, along Saxer Avenue to Powell Road, along Powell Road to State Highway 420 and continuing in a straight line to the Delaware River. MONTGOMERY COUNTY:

That portion southeast of a line following Lower State Road from Bucks County southwest to the Bethlehem Pike (U.S Highway 309), south on the Bethlehem Pike to the Penllyn Pike, southwest on the Penllyn and Blue Bell Pikes to the Wissahickon Creek, southeast on the Wissahickon Creek to the Butler Pike to North Lane near Conshohocken Borough, southwest on North Lane to Schuylkill River and continuing southeast in a line to the Spring Mill Road and southwest on the Spring Mill Road to Delaware County. PHILADELPHIA COUNTY

Rates Fringes

ELECTRICIAN.....\$ 58.33 59%+1.75

ELEC0102-003 06/03/2019

BUCKS COUNTY (Plumstead, Bedminister, Tinicum, Nockamixon, Bridgeton and Durham Townships in their entirety, and that portion of Haycock and Springfield Townships east of a line following State Highway 412, from Northampton County south to Route 09071 to State Highway 212, along Highway 212 to Route 09068, and along 09068 to State Highway 313. Also included is that portion of Dublin Borough east of State Highway 313

Rates Fringes

ELECTRICIAN.....\$ 57.31 57.50%

ELEC0126-002 05/28/2018

CHESTER, DELAWARE, MONTGOMERY, PHILADELPHIA, AND REMAINDER OF BUCKS COUNTY

Rates Fringes

Line Construction:

Cable Splicer.....\$ 53.64 29.25%+11.25
Groundman.....\$ 32.18 29.25%+11.25
Lineman.....\$ 53.64 29.25%+11.25
Truck Driver.....\$ 34.87 29.25%+11.25
Winch Truck Operator.....\$ 37.55 29.25%+11.25

ELEC0269-001 10/01/2017

BUCKS COUNTY (Area East of a line starting at the Delaware River and following the west limits of the Borough of Bristol, along the continuation of U.S. Highway 13 and under the Pennsylvania Railroad Bridge to Route 09113, north along 09113 to route 152, north along route 152 to the Hulmeville Rd., east on the Hulmeville to Route 344, north on route 344 to the junction of Spurs 281 and 252 continue north on spur 252 and

route 09028, west on 09028 to Route 152, north on 152 to TR 532, north on TR 532 to TR 113, north on TR 113 to TR 232 as Anchor Inn, northeast on TR 232 and continue northeast along 659 to Route 09060, West on 09060 to Route 402, north on 402 to the Borough Line at the southwest corner of the Borough of New Hope; including the Boroughs of New Hope and Bristol)

	Rates	Fringes
ELECTRICIAN.....	\$ 49.79	61.48%

ELEC0269-002 01/01/2019		

BUCKS COUNTY - That portion east of a line starting at the Delaware River and following the west limits of the Borough of Bristol, along the continuation of U.S. Highway 13 and under the Pennsylvania Railroad Bridge to Route 09113, north along 09113 to route 152, north along route 152 to the Hulmeville Rd., east on the Hulmeville to Route 344, north on route 344 to the junction of Spurs 281 and 252 continue north on spur 252 and route 09028, west on 09028 to Route 152, north on 152 to TR 532, north on TR 532 to TR 113, north on TR 113 to TR 232 as Anchor Inn, northeast on TR 232 and continue northeast along 659 to Route 09060, West on 09060 to Route 402, north on 402 to the Borough Line at the southwest corner of the Borough of New Hope. The Boroughs of New Hope and Bristol are included.

	Rates	Fringes
Line Construction:		
Cable Splicer.....	\$ 52.71	61.93%
Groundman, Truck Driver.....	\$ 40.16	61.93%
Linemen and Heavy		
Equipment Operator.....	\$ 50.20	61.93%

ELEC0313-003 06/01/2011		

DELAWARE COUNTY :(That portion south of U.S. Highway No. 1 and west of U.S. Highway No. 202) Chester County (That portion

South and east of U. S. Highway 1)

	Rates	Fringes
ELECTRICIAN.....	\$ 35.00	23.70

 ELEC0375-001 06/01/2019

BUCKS COUNTY (East Rock Hill, West Rock Hill, Milford and Richland Townships in their entirety and that portion of Haycock and Springfield Townships west of a line following State Highway 212 from Northampton County South to Route 09071 along 09071 to state Highway 212, along Highway 212 to Route 09068 and along 09068 to State Highway 313) MONTGOMERY COUNTY(Upper Hanover Twp.in its entirety)

	Rates	Fringes
ELECTRICIAN.....	\$ 41.59	20.29

 ELEC0380-001 09/29/2014

BUCKS COUNTY (Hilltown and New Britain Townships in their entirety; that portion of Telford Borough Northeast of County Line Road (Main Street) and bounded by West Rock Hill and Hilltown Township that portion of Dublin Borough West of State Highway 313, and that portion of Doylestown and Warrington Townships and Doylestown Borough Northwest of a line following U.S. Highway 611 South from Route 09064 to the spur of Route 270, and proceeding Northwest along the spur to Route 397, Southwest on 397 to Route 350, Southeast on 350 to Route 395, Southwest on 395 to Route 09069, Southeast on 09069 to Route 09041, Southwest on 09041 to the Montgomery County Line)
 DELAWARE COUNTY (The portion of Radnor Township North of U.S Highway 30 and West of State Highway 320) MONTGOMERY COUNTY (The portion Northwest of a line following Lower State Road from Bucks County Southwest to Bethlehem Pike (U.S. Highway 309), South on Bethlehem Pike to Penllyn Pike, Southwest on the Penllyn and Blue Bell Pikes to Wissahickon Creek to the

Butler Pike, Southwest Wissahickon Creek to Butler Pike, Southwest on Butler Pike, to North Lane near Conshohocken Borough, Southeast on North Lane to the Schuylkill River and continuing Southeast in a line to Spring Mill Road, Southwest on Spring Mill Road to Delaware County; but excluding Upper Hanover, Douglas, Upper Pottsgrove, West Pottsgrove Townships and also excluding that portion of the Borough of Pottstown North and West of a line drawn Northeast on Kein Street from the Schuylkill River to Reading Railroad Northwest on the railroad to Madison Street, to High Street, East on High Street to Green Street, North on Green Street and Northeast on Mintzer Street to Lower Pottsgrove Township Line, along this township line and the borough line Northwest to Adams Street and Beehive Road, Northeast on Beehive Road to the Township Line at Mervine Street)

CHESTER COUNTY (East Coventry, East Vincent, West Vincent, East Pikeland, West Pikeland, Uwchlan, Upper Uwchlan, East Brandywine, Schuylkill and Charleston Townships in their entirety, and that portion of Clan, East Clan, East Whiteland & West Whiteland, Tredyffrin, Willistown, Easttown Townships and Borough of Downingtown north of U. S.Highway 30)

	Rates	Fringes
ELECTRICIAN.....	\$ 41.05	29.99

ELEC0654-001 06/03/2019		

DELAWARE COUNTY (The portion south of U.S. Highway 30 and north of that part U.S. Highway 1 between U.S. Highway 202 and the Chester County Line, and east of that part of U.S. Highway 202 between U.S. Highway 1 and the Delaware Line, and west of a line extending from Montgomery County along State Route 320 to Maple, then along the Springfield Road to Saxer Avenue, along Saxer Avenue to Powell Road; along Powell Road to State Highway 420; along 420 and continuing in a straight line to the Delaware River in the State of Pennsylvania) CHESTER COUNTY (That portion south of U. S. Highway 30 and north of that part of U.S. Highway 1)

	Rates	Fringes
ELECTRICIAN.....	\$ 45.33	19%+21.24

ELEC0743-001 09/01/2018

CHESTER (Coatesville, Honey Brook, South Coventy, Valley, Wallace, Warwick, West Brandywine, West Clan, and West Nantmeal Twps); AND MONTGOMERY (Douglas, Pottstown, Upper Pottsgrove, and West Pottsgrove, Twps) COUNTIES

	Rates	Fringes
ELECTRICIAN.....	\$ 36.02	22.18

New Year's Day, Good Friday, Memorial Day, Fourth of July, Labor Day, Veterans' Day, Thanksgiving Day, and Christmas Day.

ELEC0743-007 09/01/2018

CHESTER COUNTY (The portion of Sadsbury and West Sadsbury Township north of U.S. Highway 30)

	Rates	Fringes
ELECTRICIAN.....	\$ 36.02	22.18

* ENGI0542-005 05/01/2019

	Rates	Fringes
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Power equipment operators:
(HEAVY, HIGHWAY, AND WATER
LINE CONSTRUCTION (Off Plant
Site))

GROUP 1.....	\$ 46.41	29.60
GROUP 1a.....	\$ 49.41	30.49
GROUP 2.....	\$ 46.16	29.53
GROUP 2a.....	\$ 49.17	30.41
GROUP 3.....	\$ 42.08	28.32
GROUP 4.....	\$ 41.78	28.23
GROUP 5.....	\$ 40.06	27.72
GROUP 6.....	\$ 39.07	27.43

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Handling steel and stone in connection with erection, cranes doing hook work, any machine handling machinery, helicopters, concrete pumps building machines similar to the above, including remote control equipment.

GROUP 1a: Machines handling steel, or the functional equivalent, and stone in connection with erection 15 ton and over factory rating; Cranes doing hook work 15 ton and over factory rating; Any machines handling machinery; High Rail/Burro Crane 15 ton and over factory rating; Rail Loader (Winch Boom Type) 15 ton and over factory rating; Concrete Pumps (Building) 120 feet of Boom length or less (200 yard pour or less); Machines similar to above, including remote control equipment; Equipment in this Wage Group that does not require an oiler.

GROUP 2: All types of cranes, All types of backhoes, Cableways, Draglines, Keystones, all types of shovels, Derricks, Pavers 21E and over, Trenching machines, Trench shovel, Graddalls, Front-End loaders, Boat Captain, Pippin type backhoes, Tandems scrapers, Towers type crane operation erecting, Dismantling, Jumping or Jacking, Drills (self-containes), (drillmaster type) forklift (20 ft. and over), Moter patrols (fine grade), Batch plant with mixer, Carryalls, Scraper, Trounapulls, Roller (Hith Grade Finishing), Spreaders (asphalt), Bulldozers and Tractors, Mechanic welder, Conveyor loaders (euclid-type wheel), Concrete pump, Milling Machines, Hoist with two towers, Building hoist double drum (unless used as a single drum), Mucking machines in tunnel, All auto grade and concrete

finishing machines, Bundle pullers/extractors (tubular), toxic/hazardous waste removal rate 20 per cent added to all classification, bobcat, side broom, directional boring machines, vermeet saw type machines (other than hand held) tractor mounted hydro axe, chipper with boom, all machine similar to the above includidng remote control equipment.

3: Asphalt plant engineers, Well drillers, Ditch witch (small trencher), Motor patrols, Fine grade machines, Ten-ton roller (grade fill stone base), Concrete breaking machines, Guilloline only, Stump grinder, Conveyors (except building conveyors), Fork lift trucks of all types, High pressure boliers, Machine similar to the above, including remote control equipment.

GROUP 2a: Crawler backhoes and Crawler gradalls over one cubic yard factory rating; Hydraulic backhoes over one cubic yard factory rating; All types of cranes 15 ton and over factory rating; Single person operation truck cranes 15 ton and over factory rating; Cherry picker type machinery and equipment 15 ton and over factory rating; Concrete Pumps (Heavy/Highway); Machines similar to above, including remote control equipment; Equipment in this Wage Group that does not require an oiler.

GROUP 3: Asphalt plant engineers, Well drillers, Ditch witch (small trencher), Motor patrols, Fine grade machines, Ten-ton roller (grade fill stone base), Concrete breaking machines, Guilloline only, Stump grinder, Conveyors (except building conveyors), Fork lift trucks of all types, High pressure boliers, Machine similar to the above, including remote control equipment.

GROUP 4: Seaman, Pulverzer form line grader, Farm tractors, road finishing, Concrete spreader, Power broom (self-contained), Seed spreader, Grease truck.

GROUP 5: Compressors pumps, Well point pumps, Welding machines Tireman, Power equipment, Maintenance engineer (power boats), and macnines similar to the above.

GROUP 6: Fireman, Oilers and deck hands (personnel Boats),

grease truck.

FOOTNOTE: A. PAID HOLIDAYS: New Year's Day; Memorial Day; Independence Day; Labor Day; Thanksgiving Day and Christmas Day

****TOXIC/HAZARDOUS WASTE REMOVAL****

Add 20 per cent to basic hourly rate for all classifications

IRON0068-003 07/01/2014

BUCKS COUNTY (Remainder)

	Rates	Fringes
IRONWORKER, REINFORCING.....	\$ 42.65	30.28

IRON0068-005 07/01/2014

BUCKS COUNTY (Remainder)

	Rates	Fringes
IRONWORKER (STRUCTURAL & ORNAMENTAL).....	\$ 44.64	30.28

* IRON0401-001 07/01/2019

BUCKS (Includes the towns of BEnsalem, Breadysville, Bristol Churchville, Cornwells Heights, Davisville, Eddington, Feasterville, Hartsville, Johnsville, Line Lexington, Neshaminy, Southampton, Tradesville, Trevose, Unionville, Warminster, and Warrington); DELAWARE (North of a line running along State Rt 352 to right on State Rt 291 to State Line); CHESTER (Includes the towns of Aldham, Anselma, Bacton, Berwyn, Cedar Hollow, Charlestown, Chester Springs, Cromby, Devon, Devault, Daylesford, Diamond Rock, Dutton Mill, Frazer, Goshenville, Howellville, Kimberton, Ludwigs Corner, Paoli, Matthews, Perkiomen Junction, Phoenixville, Rapps Corner, Rocky

Hill, Strattford, Sugartown, Tanguy, Valley Forge, Valley Store, White Horse, Williams Corner, and Wilsons Corner); MONTGOMERY (Remainder); and PHILADELPHIA COUNTIES

	Rates	Fringes
IRONWORKER, STRUCTURAL AND ORNAMENTAL.....	\$ 49.30	34.00

IRON0405-001 07/01/2019

BUCKS (Includes the towns of Bensalem, Breadysville, Bristol, Churchville, Cornwell Heights, Davisville, Eddington, Festerville, Hartsville, Johnsville, Line Lexington, Neshaminy, Southhampton, Transville, Trebose, Unionville, Warminister, and Warrington), DELAWARE (North of a line running along State Route 352 to right on State Route 291 to State Line); CHESTER (Includes the towns of Aldham, Anselma, Bacton, Berwyn, Cedar Hollow, Charlestown Chester Springs, Cromby, Devon, Devault, Daylesford, Diammond Rock, Dutton Mill, Frazer, Goshenville, Howellville, Kimberton, Ludwigs Corner, Paoli, Mathews, Perkiomen Junction, Phoenixville, Rapps Corner, Rocky Hill, Strafford, Sugartown, Tanguy, Valley Forge, Valley Store, White Horse, Williams Corner, and Wilsons Corner); MONTGOMERY (Remainder); AND PHILDELPHIA COUNTIES

	Rates	Fringes
IRONWORKER, REINFORCING.....	\$ 43.88	30.25
Reinforcing Steel Mesh, Rebar Work		

The following holidays shall be observed and when work is performed thereon it shall be paid for at twice the base rate: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day. Employees shall be off Christmas Eve Day and receive four hours pay. Employees who have to work on Christmas Eve Day shall work four hours and be paid for eight hours pay for the holiday. Any time worked beyond fours hours shall be paid at the

double time rate plus the four hours holiday pay. To receive holiday pay, the employee must work the day before Christmas Eve and the first working day after Christmas Day.

IRON0405-003 07/01/2019

BUCKS COUNTY (Includes the towns of Bensalem, Breadysville, Bristol, Churchville, Cornwells Heights, Davisville, Eddington, Feasterville, Hartsville, Johnsville, Line Lexington, Neshaminy, Southhampton, Tradesville, Trevose, Unionville, Warminster, and Warrington), DELAWARE (North of a line running along State Route 352 to right on Stae Route 291 to State Line); CHESTER (Includes the towns of Alsham, Anselma, Bacton, Berwyn, Cedar Hollow, Charlestown, Chester Springs, Cromby, Devon, Devault, Daylesford, Diamond Rock, Dutton Mill, Frazer, Goshenville, Howellville, Kimberton, Ludwig Corner, Paoli, Mattews, Perkiomen Junction, Phoenixville, Rapps Corner, Rocky Hill, Strafford, Sugartown, Tanguy, Valley Forge, Valley Store, White Horse, Williams Corner); MONTGOMERY (Remainder); and PHILADELPHIA COUNTIES

	Rates	Fringes
IRONWORKER (Rigger and Machinery Mover).....	\$ 42.11	28.50

The following holidays shall be observed and when work is performed thereon it shall be paid for at twice the base rate: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day. Employees shall be off Christmas Eve Day and receive four hours pay. Employees who have to work on Christmas Eve Day shall work four hours and be paid for eight hours pay for the holiday. Any time worked beyond fours hours shall be paid at the double time rate plus the four hours holiday pay. To receive holiday pay, the employee must work the day before Christmas Eve and the first working day after Christmas Day.

IRON0420-007 07/01/2014

MONTGOMERY COUNTY (Anise, Berguy, Congo, Douglas, East Greenfield, East Limerick, East Slaford, East Zieglerville, Engleville, Fagleysville, Ford, Gilbertsville, Green Lane, Hanover, New Perksionenville, Niato, Palm, Obelish, Pennsburg, Perkiomen, Pottstown, Royerford, Roytown, Sammamansville, Tylerport, Upper Hanover, Upper Pottsgrove, Upper Wodall, West Limerick, West Salford, and West Zieglerville Townships)

Rates Fringes

Ironworkers:

Projects \$200,000,000 and greater, all work.....	\$ 31.70	25.00
Projects less than \$200,000,000.....	\$ 30.70	25.00

IRON0451-004 07/01/2018

CHESTER (Remainder of County), AND DELAWARE (Remainder of County) COUNTIES

Rates Fringes

Ironworkers: (Structural, Ornamental, and Reinforcing).....	\$ 35.10	30.35
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The following holidays shall be observed, and when work is performed thereon it shall be paid for at twice the base wage rate: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day.

LABO0057-001 05/01/2019

Rates Fringes

LABORER

GROUP 1.....	\$ 31.95	26.22
GROUP 2.....	\$ 32.15	26.22
GROUP 3.....	\$ 32.15	26.22
GROUP 4.....	\$ 26.75	26.22
GROUP 5.....	\$ 32.80	26.22
GROUP 6.....	\$ 32.85	26.22
GROUP 7.....	\$ 32.70	26.22
GROUP 8.....	\$ 32.45	26.22
GROUP 9.....	\$ 32.30	26.22
GROUP 10.....	\$ 32.45	26.22
GROUP 11.....	\$ 32.35	26.22
GROUP 12.....	\$ 36.08	26.22
GROUP 13.....	\$ 32.20	26.22

LABORERS CLASSIFICATIONS

GROUP 1: Yardwork Laborers; Scale Mixermen; Burnermen, Feeders; Dustmen

GROUP 2: General Laborer; Asphalt Shovelers; Sheeting, Shoring & Lagging Laborers; Stone, Granite & Artificial Stone Setting Laborer; Hod Carriers; Scaffold Builders; Relief Joints & Approach Slabs; Assembling & Placing Gabions; Pneumatic Tool Laborers; Concrete Forms & Stripping Laborers; Concrete & Lumber Material Laborers; Steel & Steel Mesh (Carrying & Handling); Form Pinner; Mortar Mixers; Pouring & Placing Concrete; Grade Men

GROUP 3: Vibrator Laborer; Finish Surface Asphalt Racker; Jackhammer Operators; Paving Breaker Operator; Pipelayer & Caulker (all joints up to within 5 feet of the Building Foundation Line); Conduit & Duct Layers

GROUP 4: Flagperson

GROUP 5: Miners

GROUP 6: Burners

GROUP 7: Miner Bore Driver; Blasters; Drillers; Pneumatic Shield Operator

GROUP 8: Form Setters

GROUP 9: Trackmen; Brackmen; Groutmen; Bottom Shaft Men; All Other Laborers in Free Air Tunnels; Underpinning (When an underpinning excavation is dug eight feet or more below the natural grade or where an excavation for a pier hole of five feet square or less and eight feet or more deep is dug, the rate shall apply only after a depth of eight feet is reached, to the men working in the bottom)

GROUP 10: Circular Caissons (Where an excavation for circular caissons are dug eight feet or more below the natural grade level adjacent to the starting point of the caisson hole, at ground level, for the men working in the bottom); Welders, Burners & Air Tuggers

GROUP 11: Powderman; Multiple Wagon Drill Operator

GROUP 12: Toxic/Hazardous Waste Handler

GROUP 13: Wagon Drill/Hydraulic Track Drill Operator

LABO0413-005 05/01/2019

	Rates	Fringes
Landscaping		
Farm Tractor Driver,		
Hydroseeder Nozzleman,		
Mulcher Nozzleman.....	\$ 24.22	23.22+A

FOOTNOTE:

A. PAID HOLIDAYS: Independence Day, Labor Day, and Thanksgiving Day

PAIN0021-003 02/01/2019

	Rates	Fringes
Painters:		
Bridge.....	\$ 55.52	27.84
All Other Work.....	\$ 44.56	27.80

PLAS0592-008 05/01/2018

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER...	\$ 35.65	32.01

PLUM0420-001 05/01/2018

	Rates	Fringes
Steamfitter		
Bucks, Chester, Delaware, Montgomery and Philadelphia Counties.....	\$ 56.37	34.09

PLUM0690-008 05/01/2019

	Rates	Fringes
PLUMBER.....	\$ 55.45	34.24

TEAM0107-002 05/01/2018

	Rates	Fringes
Truck drivers:		
GROUP 1.....	\$ 30.315	18.56+a+b
GROUP 2.....	\$ 30.415	18.56+a+b
GROUP 3.....	\$ 30.665	18.56+a+b

TRUCK DRIVERS CLASSIFICATIONS

GROUP 1 - Stake body truck (single axle, dumpster)

GROUP 2 - Dump trucks, tandem and batch trucks,

semi-trailers, agitator mixer trucks, and dumpcrete type vehicles, asphalt distributors, farm tractor when used for transportation, stake body truck (tandem)

GROUP 3 - Euclid type, off-highway equipment or belly dump trucks and double hitched equipment, staddle (ross) carrier, low-bed trailers

FOOTNOTE:

A. PAID HOLIDAYS: Memorial Day, Independence Day, Labor Day, Thanksgiving Day and five personal holidays provided employee works at least one day in the three work days before and at least one day in the three work days after the said holiday. Employee earns a personal holiday every two months, provided employee has worked twenty-six day in each consecutive two month period, up to a maximum of five per calendar year. After 130 work days the employee is entitled to all five personal holidays.

B. PAID VACATION: Employee will earn one vacation day for every two months, provided employee has worked twenty-six day in each consecutive two month period, up to a maximum of five vacation days per calendar year. After 130 workdays the employee is entitled to all five days of vacation. Employees with 5 years of seniority, earn an additional week of vacation, accrued in the same way.

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours

they work, up to 56 hours of paid sick leave each year.

Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number,

005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator

(See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION"

"General Decision Number: PA20190002 07/05/2019

Superseded General Decision Number: PA20180004

State: Pennsylvania

Construction Types: Heavy and Highway

Counties: Allegheny, Armstrong, Beaver, Bedford, Blair, Butler, Cambria, Cameron, Centre, Clarion, Clearfield, Clinton, Crawford, Elk, Erie, Fayette, Forest, Franklin, Fulton, Greene, Huntingdon, Indiana, Jefferson, Lawrence, McKean, Mercer, Mifflin, Potter, Somerset, Venango, Warren, Washington and Westmoreland Counties in Pennsylvania.

HEAVY AND HIGHWAY CONSTRUCTION PROJECTS (excluding sewer grouting projects and excluding sewage and water treatment plant projects)

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.60 for calendar year 2019 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.60 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2019. If this contract is covered by the EO and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must pay workers in that classification at least the wage rate determined through the conformance process set forth in 29 CFR 5.5(a)(1)(ii) (or the EO minimum wage rate, if it is higher than the conformed wage rate). The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the

federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/04/2019
1	01/11/2019
2	02/15/2019
3	05/17/2019
4	06/07/2019
5	06/14/2019
6	07/05/2019

BOIL0013-005 03/01/2018

CENTRE, FRANKLIN, POTTER, CLINTON, FULTON, HUNTINDON AND MIFFLIN COUNTIES

	Rates	Fringes
BOILERMAKER.....	\$ 45.89	33.39

BOIL0154-004 01/01/2017

ALLEGHENY, ARMSTRONG, BEAVER, BEDFORD, BLAIR, BUTLER, CAMBRIA, CAMERON, CLARION, CLEARFIELD, CRAWFORD, ELK, FAYETTE, FOREST, GREENE, INDIANA, JEFFERSON, LAWRENCE, MCKEAN, MERCER, SOMERSET, VENANGO, WARREN, WASHINGTON AND WESTMORELAND COUNTIES

	Rates	Fringes
BOILERMAKER.....	\$ 40.90	27.27

BOIL0744-003 07/01/2008

ERIE COUNTY

	Rates	Fringes
BOILERMAKER.....	\$ 35.34	18.48

BRPA0005-033 05/01/2018

MIFFLIN COUNTY

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 31.36	17.73

BRPA0005-046 05/01/2016

FRANKLIN COUNTY

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 32.21	14.18

BRPA0005-071 05/01/2018

CLINTON COUNTY

	Rates	Fringes
BRICKLAYER.....	\$ 33.16	16.31

BRPA0009-004 12/01/2018

BEDFORD, BLAIR,CAMBRIA, CENTRE COUNTY (Halfmoon, Houston, Patton, Rush,Taylor and Worth Townships),FULTON, HUNTINGDON, and SOMERSET COUNTIES

	Rates	Fringes
Bricklayer, Stonemason & Marble Setter.....	\$ 29.46	19.58

BRPA0009-006 12/01/2018

CLEARFIELD, FOREST, JEFFERSON, VENANGO, AND CLARION (Except
Brady, Madison, Perry, Porter, Redbank, and Toby Townships)
COUNTIES

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 29.90	19.91
Marble mason.....	\$ 29.90	19.91

BRPA0009-023 06/01/2018

BEAVER COUNTY

	Rates	Fringes
BRICKLAYER.....	\$ 30.16	21.41

BRPA0009-025 12/01/2018

BUTLER, LAWRENCE, AND MERCER COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 30.11	21.64

BRPA0009-032 06/01/2017

FAYETTE (Jefferson & Washington Twps), GREENE (Except
Cumberland, Dunkirk, Greene, Monongahelia Twps), INDIANA, AND
WESTMORELAND (Rostraver Twp) COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 31.00	20.66

BRPA0009-033 12/01/2018

ARMSTRONG, CLARION (Brady, Madison, Perry, Tobe, Porter, Redbank Twps), FAYETTE (Except Jefferson & Washington Twps), GREENE (Cumberland, Dunkirk, Greene, Monongahelia Twps), INDIANA, AND WESTMORELAND (Except Rostrave Twp) COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 31.95	21.96

BRPA0009-034 11/01/2017

ERIE COUNTY

	Rates	Fringes
BRICKLAYER.....	\$ 27.55	19.76

BRPA0009-058 12/01/2017

ALLEGHENY, WASHINGTON (Cross Creek, Hanover, Jefferson, Mt Pleasant, Nottingham, Peters, Robinson, Smith, Union Twps) COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 31.69	21.27

BRPA0009-059 12/01/2018

CAMERON, ELK, McKEAN, POTTER AND WARREN COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 27.66	19.67

CARP2235-005 01/01/2019

Rates Fringes

PILEDRIVERMAN

Piledriverman (welder).....	\$ 35.25	19.30
Piledriverman.....	\$ 34.30	19.30

CARP2235-006 01/01/2019

	Rates	Fringes
Diver.....	\$ 51.45	19.30
Tender.....	\$ 34.30	19.30

CARP2274-001 01/01/2019

	Rates	Fringes
CARPENTER (ALLEGHENY, ARMSTRONG, BEAVER, BUTLER, ERIE, FAYETTE, GREENE, LAWRENCE, MERCER, WASHINGTON, AND WESTMORELAND COUNTIES)		
Carpenters (Welders).....	\$ 34.97	18.42
Carpenters.....	\$ 34.02	18.42

CARPENTER (BEDFORD, BLAIR, CAMBRIA, CAMERON, CENTRE, CLARION, CLINTON, CLEARFIELD, CRAWFORD, ELK, FOREST, FRANKLIN, FULTON, HUNTINGDON, INDIANA, JEFFERSON, MCKEAN, MIFFLIN, POTTER, SOMERSET, VENANGO, AND WARREN COUNTIES)		
Carpenters (Welders).....	\$ 34.72	18.42
Carpenters.....	\$ 33.77	18.42

ELEC0005-006 12/21/2018

ALLEGHENY, ARMSTRONG, BEDFORD, BLAIR, BUTLER CAMBRIA, CAMERON,
CENTRE (Remainder), CLARION, CLEARFIELD, ELK, FAYETTE, FULTON,
GREENE, HUNTINGDON, INDIANA, JEFFERSON, MCKEAN, SOMERSET,
VENANGO, WASHINGTON, AND WESTMORELAND COUNTIES

	Rates	Fringes
ELECTRICIAN.....	\$ 40.76	26.34

 ELEC0056-004 06/03/2019

ERIE, FOREST AND WARREN COUNTIES

	Rates	Fringes
ELECTRICIAN.....	\$ 34.34	22.27

 ELEC0126-005 05/24/2019

ALLEGHENY, ARMSTRONG, BEAVER, BEDFORD, BLAIR, CAMBRIA, CENTRE,
 CLARION, CLEARFIELD, FAYETTE, FULTON, GREENE, HUNTINGDON,
 INDIANA, JEFFERSON, SOMERSET, WASHINGTON AND WESTMORELAND

	Rates	Fringes
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Line Construction:

Cable Splicer.....	\$ 47.38	30.25%+11.50
Groundman.....	\$ 28.43	30.25%+11.50
Lineman.....	\$ 47.38	30.25%+11.50
Truck Driver.....	\$ 30.80	30.25%+11.50
Winch Truck Operator.....	\$ 33.17	30.25%+11.50

 ELEC0126-007 05/28/2018

FRANKLIN AND MIFFLIN COUNTIES

	Rates	Fringes
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Line Construction:

Cable Splicer.....	\$ 45.25	29.25%+11.25
Groundman.....	\$ 27.15	29.25%+11.25
Lineman.....	\$ 45.25	29.25%+11.25
Truck Driver.....	\$ 29.41	29.25%+11.25
Winch Truck Operator.....	\$ 31.68	29.25%+11.25

ELEC0143-007 06/01/2019

FRANKLIN and MIFFLIN COUNTIES

	Rates	Fringes
ELECTRICIAN.....	\$ 31.60	24.07

ELEC0712-003 12/31/2018

CRAWFORD, BEAVER, LAWRENCE AND MERCER COUNTIES

	Rates	Fringes
ELECTRICIAN.....	\$ 38.55	23.49

ELEC0812-008 06/01/2017

CLINTON COUNTY

	Rates	Fringes
ELECTRICIAN.....	\$ 33.59	18.61

ELEC0812-009 06/01/2017

POTTER COUNTY

	Rates	Fringes
ELECTRICIAN.....	\$ 34.60	18.64

ELEC0812-011 06/01/2017

CENTRE COUNTY (Burnside, Curtin, Liberty, Howard, Marion, Walker, Miles, Haines Townships)

	Rates	Fringes
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ELECTRICIAN.....\$ 33.59 18.61

ELEC1319-004 09/02/2018

BUTLER, CAMERON, CLINTON, CRAWFORD, ELK, ERIE, FOREST,
LAWRENCE, MCKEAN, MERCER, VENANGO, WARREN AND POTTER COUNTIES

Rates Fringes

Line Construction:

Equipment Operator.....\$ 56.43 19.84
Groundmen.....\$ 34.99 11.28
Linemen.....\$ 56.43 22.84
Truck Driver.....\$ 36.68 11.41

ENGI0066-016 01/01/2019

Rates Fringes

Power equipment operators:

(ALLEGHENY, ARMSTRONG,
BEAVER, BLAIR, BUTLER,
CAMBRIA, CENTRE, CLARION,
CLEARFIELD, CRAWFORD, ERIE,
ELK, FAYETTE, GREENE,
INDIANA, JEFFERSON, LAWRENCE,
MCKEAN, MERCER, SOMERSET,
VENANGO, WARREN, WASHINGTON,
AND WESTMORELAND COUNTIES)

GROUP 1.....\$ 31.89 21.68
GROUP 2.....\$ 31.63 21.68
GROUP 3.....\$ 27.98 21.68
GROUP 4.....\$ 27.52 21.68
GROUP 5.....\$ 27.27 21.68

Power equipment operators:

(BEDFORD, CAMERON, CLINTON,
FOREST, FRANKLIN, FULTON,
HUNTINGDON, MIFFLIN, AND
POTTER COUNTIES)

GROUP 1.....\$ 31.60 21.68

GROUP 2.....	\$ 31.32	21.68
GROUP 3.....	\$ 27.68	21.68
GROUP 4.....	\$ 27.19	21.68
GROUP 5.....	\$ 26.98	21.68

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1 - Asphalt Paving Machine (Spreader), Autograde (C.M.I. and similar); Backfiller, Compactor with Blade, Backhoe - 360 and 180 degree Swing; Cableway; Caisson Drill (similar to Hugh Williams), Central Mix Plant; Cooling Plant; Concrete Paving Mixer, Concrete Pump (self-propelled); Cranes; Cranes (boom or mast over 101ft.\$50 per each additional 50 feet inclusive of jib), Cranes (Tower Stationary- Climbing Tower Crane); Derrick; Derrick Boat; Dozer(greater than 25,000 lbs.); Dragline; Dredge; Dredge Hydraulic; Elevating Grader; Franki Pile Machine; Gradall (remote control or otherwise),Grader (power-fine grade); Hllift (4 cy. and over); Hoist 2 Drums or more (in one unit); Hydraulic Boom Truck with pivotal cab (single motor-Pitman or similar), (Boom and Mast over 101 feet will be paid an additional 50 feet inclusive of jib if used;) Kocal; Mechanic, Locomotive (std. Gauge); Metro-chip Harvester or similar; Milling Machine (Roto Mill or similar); Mix Mobile; Mix Mobile (with Self Loading Attachment), Mucking Machine (tunnel); Pile Driver Machine; Pipe Extrusion Machine; Presplitter Drill (self contained); Refrigeration Plant (soil Stablization) Rough Terrain Crane (25 ton over) (Boom and Mast over 101 feet will be paid an additional 50 feet inclusive of jib if used); Rough Terrain Crane (under 25 ton), Scrapers; Shovel-Power; Slip form Paver (C.M.I. and similar); Trenching Machine (30,000 lbs. and over), Trenching Machine (under 30,000 lb.), Tunnell Machine (Mark XXI Jarva or similar), Vermeer Saw, Whirley, Mechanic, Compactor with blade

GROUP 2: Asphalt plant operator; auger (tractor mtd.); auger (truck mtd.); belt loader (euclid or similar); boring machine; cable placer or layer; Directional drill over 3,000 lbs thrust; concrete batch plant (electronically synchronized); concrete belt placer (C.M.I. and similar);

concrete finishing machine and spreader, concrete mixer (over 1 cy.) concrete pump (stationary); core drill (truck or skid mtd. - similar to penn drill), dozer (25,000 lbs or less); Ditch Witch Saw, force feedloader; fork lift (lull or similar); grader - power; grease unit operator (head); guard rail post driver (truck mounted) guard rail post driver (skid type); hiliift (under 4 cy.); skid steer loader; hydraulic boom truck (non-pivotal cab); job work boat (powered), jumbo operator; locomotive (narrow guage); minor equipment operator (accumulative four units); mucking machine; multi-head saw (groover); overhead crane; roller -power- asphalt; ross carrier; side boom or tractor mounted boom; shuttle buggy (asphalt), stone crusher (screening-washing plants); stone spreader (self propelled) truck mounted drill (davey or similar); welder and repairman; well point pump operator; bidwell concrete finishing machine (or similar).

GROUP 3: Broom Finisher (C.M.I. or similar); Compactors/Rollers (static or vibratory (Self-propelled) on dirt or stone; Curb Builder; Minor Equipment Operator (two or three units); Multi-head Tie Tamper; Pavement Breaker (self-propelled or ridden); Soil Stabilizer Machine; Tire Repairman; Tractor (snaking and hauling); Well Driller and Horizontal: Winch or "A" Frame Truck (when hoisting and lowering).

GROUP 4: Ballast Regulator; Compressor; Concrete Mixer (1 cy. & under with skip); Concrete Saw (Ridden or self-propelled); Conveyor; Elevator (Material hauling only); Fork-lift (Ridden or self-propelled); Form Line Machine; Generator; Groute Pump; Heater (Machinical); Hoist (single Drum); Ladavator, Light Plant; Mulching Machine; Personnel Boat (Powered), Pulverizer, Pumps, Seeding Machine, spray Cure Machine (powered Driven); Subgrader; Tie Puller; Tugger; Welding Machine (Gas or Diesel).

GROUP 5: Deck Hand; Farm Tractor; Fireman on Boiler; Oiler; Power Broom; Side Delivery Shoulder Spreader (attachment);

IRON0003-001 06/01/2019

ALLEGHENY, FAYETTE, WESTMORELAND, CAMBRIA, INDIANA, ARMSTRONG,
BUTLER, BEAVER, CLARION, AND WASHINGTON COUNTIES

	Rates	Fringes
IRONWORKER.....	\$ 35.49	31.84

IRON0003-007 06/01/2019

BLAIR, CAMERON, CENTRE, CLEARFIELD, CLINTON, ELK, JEFFERSON,
MCKEAN, AND POTTER COUNTIES

	Rates	Fringes
IRONWORKER.....	\$ 29.58	29.92

IRON0003-011 06/01/2019

CRAWFORD, ERIE, FOREST, AND WARREN COUNTIES

	Rates	Fringes
IRONWORKER.....	\$ 30.75	29.70

IRON0207-002 06/01/2018

LAWRENCE, MERCER, AND VENANGO COUNTIES

	Rates	Fringes
IRONWORKER.....	\$ 28.92	24.90

* IRON0404-008 07/01/2019

FRANKLIN (Remainder), HUNTINGDON (Remainder), AND MIFFLIN
COUNTIES

	Rates	Fringes
IRONWORKER, STRUCTURAL.....	\$ 32.76	29.88

 IRON0549-002 12/01/2012

GREENE COUNTY

	Rates	Fringes
IRONWORKER.....	\$ 30.45	16.04

 IRON0568-004 05/01/2018

BEDFORD, FRANKLIN (Southwest 1/3), FULTON, HUNTINGDON (Western 2/3), AND SOMERSET COUNTIES

	Rates	Fringes
IRONWORKER Structural, Ornamental, Reinforcing, Machinery Mover, Rigger & Machinery Erector, Welder, Fence Erector.....	\$ 28.56	20.61

 LAB01058-001 01/01/2019

	Rates	Fringes
LABORER (BEDFORD, CAMERON, CENTRE, CLINTON, CRAWFORD, FOREST, FRANKLIN, FULTON, HUNTINGDON, JEFFERSON, MIFFLIN, AND POTTER COUNTIES)		
GROUP 1.....	\$ 25.35	23.25
GROUP 2.....	\$ 25.51	23.25
GROUP 3.....	\$ 26.00	23.25
GROUP 4.....	\$ 26.45	23.25

GROUP 5.....	\$ 26.86	23.25
GROUP 6.....	\$ 23.70	23.25
GROUP 7.....	\$ 26.35	23.25
GROUP 8.....	\$ 27.85	23.25

Laborers: (ALLEGHENY,
 ARMSTRONG, BEAVER, BLAIR,
 BUTLER, CAMBRIA, CLARION,
 CLEARFIELD, ELK, ERIE,
 FAYETTE, GREENE, INDIANA,
 LAWRENCE, MCKEAN, MERCER,
 SOMERSET, VENANGO, WARREN,
 WASHINGTON, AND WESTMORELAND
 COUNTIES)

GROUP 1.....	\$ 25.45	23.25
GROUP 2.....	\$ 25.61	23.25
GROUP 3.....	\$ 26.00	23.25
GROUP 4.....	\$ 26.45	23.25
GROUP 5.....	\$ 26.86	23.25
GROUP 6.....	\$ 23.70	23.25
GROUP 7.....	\$ 26.45	23.25
GROUP 8.....	\$ 27.95	23.25

LABORERS CLASSIFICATIONS

GROUP 1: Asphalt curb sealer; Asphalt tamper; Batcherman
 (weigh) Blaster, Boatman, Brakeman, Change house attendant,
 Cofferdam, Concrete curing pitman, Puddler, Drill Runner's
 helper (Includes Drill Mounted on Truck, Track, or similar
 and Davey Drill Spots, Clean up, helps to maintain),
 Electric Brush and or Grinder, Fence Construction
 (Including Fence Machine Operator) Form stripper and Mover,
 Gabion (Erectors and Placers) Hydro jet blaster nozzleman;
 Landscape laborer, Manually moved emulsion sprayer, Radio
 actuated traffic control operator Rip rap work, scaffolds
 and Runways, Sheeters and Shorers (includes lagging)
 structural concrete Top Surfacers, Walk Behind Street
 Sweeper, and Wood Chipper; water boy

GROUP 2: Air tool operator (all types); Asphalt, batch &
 concrete plant operator (manually operated) Burner,
 Caisson; men (open air); Carryable pumps; Chain saw

operator including attachments, Cribbing, (concrete or steel); Curb machine operator (asphalt or concrete walk behind); Diamond head Core Driller, Drill runner's helper (tunnel) Fork Lift, (walk behind), Form Setter (Road Forms Line man) Highway Slab reinforcement placers (including joint and Basket Setters) Hydraulic pipe pusher; Liner plates (Tile or Vitrified Clay) Mechanical compacting equipment operators, Mechanical joint sealer, Dope pot and Tar Kettle, Mortar mixer (hand or machine) Muckers, Brakemen & all other Labor, (Includes installation of utility lines) Pipe Layers /Fusion /Heating Iron (Regardless of materials) Portable Single Unit Conveyor, Post Hole Auger, (2 or 4 cycle hand operated) Power wheelbarrows and buggies, Rail porter or similar; Sand blaster; Signal Man, Vibrator operator, All RAILROAD TRACK WORK TO INCLUDE THE FOLLOWING: adzing machine, ballast Router, Bolting Machine, Power Jacks, Rail Drills, Railroad Brakeman, Rail Saws, Spike Drivers (Manually or hand held tool) Spike Pullers Tamping Machine, Thermitweld

GROUP 3: Asphalt Luteman/Raker, Blacksmith, Blaster, Brick, stone and block pavers and block cutters (wood, belgian and asphalt); Cement mortar lining car pusher; Cement mortar mixer (pipe relining); Cement mortar pipe reliners; concrete saw operator (walk behind); Curb cutters and setters; Elevated roadway drainage construction; erector of overhead signs, Form setter (road forms-lead man); Grout machine operator; Gunite or dry pack gun (nozzle and machine man); Manhole or catch basin builder (Brick block concrete or any prefabrication) Miners and drillers (including lining, supporting and form workmen, setting of shields, miscellaneous equipment and jumbos); Multi-plate pipe (aligning and securing); Placing wire mesh on gunite projects; Wagon drill operators (air track or similar); Walk behind ditching machine (trencher or similar); crown screed adjuster and welder

GROUP 4: Reinforcing Steel Placer (Bending, aligning, and securing, Cadweld)

GROUP 5: High Burner, (Any burning not done from deck), Welder

(Pipeline)

GROUP 6: Uniformed Flagperson, Watchman

GROUP 7: Toxic/Hazardous Waste Removal Laborer Levels C & D

GROUP 8: Toxic/Hazardous Waste Removal Laborer Levels A & B

PAIN0021-019 05/01/2018

CLINTON COUNTY

	Rates	Fringes
Painters:		
Bridge.....	\$ 36.67	18.80
Brush & Roller.....	\$ 27.67	18.80
Spray.....	\$ 28.67	18.80

PAIN0021-024 05/01/2018

FRANKLIN COUNTY

	Rates	Fringes
PAINTER		
Brush.....	\$ 23.92	14.23

* PAIN0057-014 06/01/2019

ALLEGHENY, FAYETTE, GREENE, WASHINGTON COUNTIES

	Rates	Fringes
Painters:		
Bridge.....	\$ 35.25	19.82
Brush & Roller.....	\$ 28.50	19.82
Spray.....	\$ 28.50	19.82

* PAIN0057-015 06/01/2019

ARMSTRONG, BEAVER, BEDFORD, BLAIR, BUTLER, CAMBRIA, CENTRE, CLARION, CLEARFIELD, ELK, FULTON, HUNTINGTON, INDIANA, JEFFERSON, LAWRENCE, MERCER, MIFFLIN, SOMERSET, VENANGO AND WESTMORELAND COUNTIES

Rates Fringes

Painters:

Bridge.....	\$ 35.25	19.82
Brush and Roller.....	\$ 28.50	19.82
Spray.....	\$ 28.50	19.82

PAIN0057-022 05/01/2019

Rates Fringes

Painters: (ERIE, McKEAN, AND

WARREN (Including Columbus and Freehold twps) COUNTIES)

Bridges, Stacks, Towers.....	\$ 25.37	18.71
Brush and Roller.....	\$ 22.87	18.71
Spray and Sandblasting.....	\$ 23.62	18.71

* PAIN0057-027 06/01/2019

CAMERON, CRAWFORD, POTTER, WARREN, (Excluding Columbus and Freehold twps)

Rates Fringes

PAINTER

Brush and Roller.....	\$ 25.11	19.14
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PLAS0526-002 01/01/2019

Rates Fringes

CEMENT MASON/CONCRETE FINISHER...	\$ 31.94	20.50
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PLUM0027-001 06/01/2019

ALLEGHENY, ARMSTRONG, GREENE (Except extreme Eastern portion),
WASHINGTON (Except extreme Eastern portion) and WESTMORELAND
(City of Arnold and City of New Kensington Only) COUNTIES

	Rates	Fringes
Plumbers and Pipefitters		
(Bridge Drain Pipe).....	\$ 42.30	22.47

PLUM0047-005 05/01/2013

BEAVER, BUTLER, MCKEAN, MERCER, VENANGO, CLARION, LAWRENCE,
FOREST, WARREN, CRAWFORD, AND ERIE COUNTIES

	Rates	Fringes
Plumbers and Pipefitters		
(Bridge Drain Pipe).....	\$ 38.52	20.11

PLUM0354-005 06/01/2012

BEDFORD, BLAIR, CAMBRIA, CAMERON, CLEARFIELD, ELK, FAYETTE,
GREENE (Extreme Eastern portion), HUNTINGDON, INDIANA,
JEFFERSON, SOMERSE, WASHINGTON (Extreme Eastern portion), AND
WESTMORELAND COUNTIES

	Rates	Fringes
Plumbers and Pipefitters		
(Bridge Drain Pipe).....	\$ 35.54	19.97

TEAM0040-001 01/01/2019

Rates Fringes

TRUCK DRIVER (ALLEGHENY,
 ARMSTRONG, BEAVER, BLAIR,
 BUTLER, CAMBRIA, CENTRE,
 CLARFIELD, CRAWFORD, ERIE,
 FAYETTE, GREENE, INDIANA,
 JEFFERSON, LAWRENCE, MCKEAN,
 MERCER, SOMERSET, VENANGO,
 WARREN, WASHINGTON, AND
 WESTMORELAND)

GROUP 1.....	\$ 28.99	19.43
GROUP 2.....	\$ 29.13	19.51
GROUP 3.....	\$ 29.59	19.82

Truck drivers: (BEDFORD,
 CAMERON, CLAIRON, CLINTON,
 ELK, FOREST, FRANKLIN,
 FULTON, HUNTINGDON, MIFFLIN,
 AND POTTER COUNTIES)

GROUP 1.....	\$ 28.83	19.32
GROUP 2.....	\$ 28.99	19.43
GROUP 3.....	\$ 29.45	19.73

FOOTNOTES: A. Hazardous/toxic waste material/work level A & B receive additional \$2.50 per hour above classification rate

B. Hazardous/toxic waste materials/Work level C & D receive \$1.00 per hour above classification

TRUCK DRIVERS CLASSIFICATIONS

GROUP 1 - Single Axle (2 axles including steering axle);
 Includes partsman and warehoueman

GROUP 2 - Tandem - Tri-Axle - Semi-Tractor Trailer
 (combination) (3 axles or more including steering axle)

GROUP 3 - Specialty Vehicles; Heavy equipment whose capacity exceeds that for which state licenses are issued specifically refers to units in excess of eight (8) feet width (such as Euclids, Atley Wagon, Payloader, Tournawagons, and similar equipment when not self loaded);

Tar and Asphalt Distributors Trucks, Heavy Duty Trailer,
such as Low Boy, High Boy

WELDERS - Receive rate prescribed for craft performing
operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave
for Federal Contractors applies to all contracts subject to the
Davis-Bacon Act for which the contract is awarded (and any
solicitation was issued) on or after January 1, 2017. If this
contract is covered by the EO, the contractor must provide
employees with 1 hour of paid sick leave for every 30 hours
they work, up to 56 hours of paid sick leave each year.
Employees must be permitted to use paid sick leave for their
own illness, injury or other health-related needs, including
preventive care; to assist a family member (or person who is
like family to the employee) who is ill, injured, or has other
health-related needs, including preventive care; or for reasons
resulting from, or to assist a family member (or person who is
like family to the employee) who is a victim of, domestic
violence, sexual assault, or stalking. Additional information
on contractor requirements and worker protections under the EO
is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within
the scope of the classifications listed may be added after
award only as provided in the labor standards contract clauses
(29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification
and wage rates that have been found to be prevailing for the
cited type(s) of construction in the area covered by the wage
determination. The classifications are listed in alphabetical

order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial

contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION"

The Pennsylvania Turnpike Commission

Before starting any work and until completion and final payment is made for the work, or final acceptance of the work, the Contractor will provide and maintain the following minimum levels of insurance at Contractor's own expense. The cost of the required insurance shall be included in the Contractor's cost proposal and no adjustment shall be made to the contract price on account of such costs. Contractor shall furnish Certificates of Insurance showing the effective date of coverage as outlined below. No work may be performed until the required evidence of Insurance is provided in accordance with the terms of the contract. Contractor shall be responsible for ensuring that all Subcontractors hired by the Contractor are properly insured. Contractor shall not permit any such Subcontractors to start work until such evidence has been provided to the Contractor.

- a) All insurance shall be procured from insurers permitted to do business in the State in which the project is taking place and having an A.M. Best Rating of at least "A-, Class VIII".
- b) Contractor shall not have a Self-Insured Retention (SIR) on any policy greater than \$50,000, which is the responsibility of the Contractor. If Contractor's policy(ies) has a Self-Insured Retention exceeding this amount, approval must be received from the Commission prior to starting work. In the event any policy includes an SIR, the Contractor is responsible for payment within the SIR of their policy(ies) and the Additional Insured requirements specified herein shall be offered within the SIR amount(s).
- c) All insurance required herein, except for Professional Liability and Network Security and Privacy Liability Insurance, shall be written on an "occurrence" basis.
- d) The Contractor's insurance carrier(s) shall agree to provide at least thirty (30) days prior written notice to the Commission in the event coverage is canceled or non-renewed, unless cancellation is for non-payment of premium. In the event of cancellation or non-renewal of coverage(s) for any reason, it is the Contractor's responsibility to replace coverage to comply with the Contract requirements so there is no lapse of coverage for any time period.

If the insurance carriers will not issue or endorse their policy(s) to comply with the above it is the responsibility of the Contractor to report any notice of cancellation or non-renewal at least thirty (30) days prior to the effective date of this notice.

- e) Contractor shall provide the Commission with Certificates of Insurance, showing the insurance coverages listed below, ten days prior to the start of work of this Project and thereafter upon renewal or replacement of each coverage. The Contractor shall not begin any work until the Commission has reviewed and approved the Certificate of Insurance.

Failure of the Commission to demand such certificate or other evidence of full compliance with these insurance requirements or failure of the Commission to identify a deficiency from evidence that is provided shall not be construed as a waiver of Contractor's obligation to maintain such insurance.

The Pennsylvania Turnpike Commission

Upon completion of the contract, an additional certificate(s) of insurance evidencing coverage shall be provided to the Commission with final application for payment.

- f) The Commission, and its Commissioners, officers, employees and agents shall be added as ADDITIONAL INSUREDS on all required liability policies (except Workers' Compensation, Professional Liability and Network Security and Privacy Liability) for ongoing operations and completed operations on a primary noncontributory basis.

There shall be no "Insured versus Insured Exclusion" on any policies; all policies will provide for "cross liability coverage".

- g) Waiver of Rights of Subrogation: Contractor shall waive all rights of recovery against the Commission and all the additional insureds for loss or damage covered by any of the required insurance, including Workers' Compensation (except Professional Liability and Network Security and Privacy Liability).
- h) The amount of insurance in the required coverages shall not be construed to be a limitation of the liability on the part of the Contractor.
- i) The carrying of insurance described below shall in no way be interpreted as relieving the Contractor of any responsibility or liability under the contract.
- j) Any type of insurance or any increase in limits of liability which the Contractor requires for its own protection or on account of statute shall be its own responsibility and at its own expense.
- k) Contractor shall promptly notify the Commission and the appropriate insurance company(ies) in writing of any accident(s) as well as any claim, suit or process received by the insured Contractor arising in the course of operations under the contract. The Contractor shall forward such documents received to its insurance company(ies), as soon as practicable, or as required by its insurance policy(ies).

REQUIRED COVERAGES - the following may be provided through a combination of primary and excess policies in order to meet the minimum limits set forth below:

1. Workers' Compensation and Employer's Liability:

Provided in the State in which the work is to be performed and elsewhere as may be required and shall include:

- a) Workers' Compensation Coverage: Statutory Requirements
- b) Employers Liability Limits not less than:
 - Bodily Injury by Accident: \$500,000 Each Accident
 - Bodily Injury by Disease: \$500,000 Each Employee
 - Bodily Injury by Disease: \$500,000 Policy Limit

The Pennsylvania Turnpike Commission

- c) Includes sole proprietorships and officers of corporation who will be performing the work.
2. **Commercial General Liability:**
Provided on standard ISO forms or an equivalent form including Premises - Operations, Independent Contractors, Products/Completed Operations, Broad Form Property Damage, Contractual Liability, and Personal Injury and Advertising Injury.
- a) Occurrence Form with the following minimum limits:
 - (1) General Aggregate: \$2,000,000
 - (2) Products/Completed Operations Aggregate: \$2,000,000
 - (3) Each Occurrence: \$1,000,000
 - (4) Personal and Advertising Injury: \$1,000,000
3. **Automobile Liability:**
- a) Coverage to include All Owned, Hired and Non-Owned Vehicles (or "Any Auto"). If Contractor does not have any Owned Vehicles, Contractor is still required to maintain coverage for Hired and Non-Owned Vehicles as either a stand-alone policy or endorsed onto the Commercial General Liability policy above
 - b) Minimum per Accident Combined Single Limit \$1,000,000
4. **Commercial Umbrella Liability:**
- a) Policy(ies) to apply on a Following Form Basis of the following:
 - (1) Commercial General Liability,
 - (2) Automobile Liability, and
 - (3) Employers Liability Coverage.
 - b) Minimum Limits of Liability
 - Occurrence Limit: \$4,000,000
 - Aggregate Limit (where applicable): \$4,000,000
5. **Professional Liability:**
- a) The definition of "Covered Services" shall include the services required in the scope of this contract.
 - b) Minimum Limits of Liability:
 - Per Claim: \$2,000,000
 - Aggregate: \$2,000,000
 - c) If the policy is issued on a claims-made form, the following requirements will apply:
 - 1. The retroactive date must be on or before the start of work under this contract;
 - 2. In the event of policy termination, cancellation or non-renewal, the Contractor must purchase "tail coverage/an extended reporting period" or maintain coverage for a period of three (3) years after the completion of their work/final payment.

The Pennsylvania Turnpike Commission

6. **Network Security and Privacy Liability (may be included in Professional Liability):**
- a) Contractor shall maintain the following coverage including but not limited to:
 - (1) Network Security Liability for third party liability arising out of hacking, network system intrusions, unauthorized access/use to data or systems, distribution of malicious code, denial of service and cyber extortion.
 - (2) Privacy Liability for third party liability arising out of breach of privacy, inclusive of confidential and proprietary business information, HIPAA violations and other breaches of personally identifiable information and /or protected health information that may arise from their work with this contract.

 - b) Minimum Limits of Liability:
 - Per Claim: \$2,000,000
 - Aggregate: \$2,000,000

 - c) Minimum Limits of Liability:
 - Privacy Breach Notification and Credit Monitoring: \$2,000,000 Per Occurrence
7. **Crime Insurance:**
- a) Include the Employee Theft and Theft, Disappearance and Destruction coverage parts. The Employee Theft Coverage part shall include the Clients' Property Endorsement (ISO Form CR 04 01, or its equivalent).

 - b) Minimum Limits of Liability: Per Occurrence: \$1,000,000
8. **Property Coverage/Installation Floater (if applicable):**
- a) Contractor shall provide coverage for damage to their work, materials to be part of the project (on-site and off-site), damage to property in the course of installation and while in transit to the installation site.

APPENDIX J – RFP 19-10480-8386
Pennsylvania Turnpike Commission
DIVERSE BUSINESS (DB) REQUIREMENTS

Diverse Business Participation. The Commission is committed to Diverse Business (DB) participation on competitive contracting opportunities. Firms or entities that have not previously performed work or provided services to the Commission are encouraged to respond to the solicitations. RFPs may include DB participation as part of the criteria for the evaluation of proposals, and the Commission may consider DB participation as a selection factor.

Minimum Participation Level (MPL). The minimum participation level (MPL) for the inclusion of DBs will be established in the RFP/advertisement as a percentage.

(a) General Requirements. Section 303 of Title 74 of the Pennsylvania Consolidated Statutes, 74 Pa.C.S. § 303, requires proposer on contracts funded pursuant to the provisions of Title 74 (Transportation) and 75 (Vehicle Code) administered and issued by the Commission to make Good Faith Efforts to solicit subconsultants that are Diverse Businesses (DBs) as defined in Section 303. The DB requirements of Section 303 apply to this contract.

Section 303 requires proposers to make Good Faith Efforts, as described below, to solicit subconsultants that are DBs during the proposal process to maximize participation of DBs in competitive contracting opportunities.

The Commission is committed to participation by DBs and will enforce the requirements of Section 303 and this section. Failure to make Good Faith Efforts and demonstrate such Good Faith Efforts in the solicitation of subconsultants may result in the proposer being declared ineligible for the contract.

Proposers shall document and submit to the Commission all Good Faith Efforts, as described in this section, to solicit subconsultants that are DBs during the solicitation process.

Proposers are encouraged to utilize and give consideration to consultants offering to utilize DBs in the selection and award of contracts.

Proposers shall not discriminate on the basis of gender, race, creed or color in the award and performance of contracts in accordance with 62 Pa.C.S. §3701.

Failure to comply with the requirements of Section 303 or this specification may result in the imposition of sanctions as appropriate under section 531 of the Procurement Code, 62 Pa.C.S. § 531 relating to debarment and suspension.

The Commission's Director of the Office of Diversity and Inclusion, or designee, is designated the Responsible Official who shall supervise the DB program and ensure that the Commission complies with the DB program.

(b) Definitions. The following definitions apply to terms used in this specification:

1. Disadvantaged Business – A business that is owned or controlled by a majority of persons, not limited to members of minority groups, who are subject to racial, social, ethnic prejudice or cultural bias.

2. Diverse Business – A disadvantaged business, minority-owned or women-owned business or service-disabled veteran-owned or veteran-owned small business that has been certified by a third-party certifying organization.

3. Minority-owned Business – A business owned and controlled by a majority of individuals who are African Americans, Hispanic Americans, Native Americans, Asian Americans, Alaskans or Pacific Islanders.

4. Professional Services – An industry of infrequent, technical or unique functions performed by independent contractors or consultants whose occupation is the rendering of the services, including: (1) design professional services as defined in 62 Pa.C.S. § 901 (relating to definitions); (2) legal services; (3) advertising or public relations services; (4) accounting, auditing or actuarial services; (5) security consultant services; (6) computer and information technology services; and (7) insurance underwriting services.

5. Pro Forma Effort-The act of completing a form or document identifying efforts to solicit DBs for a project in order to satisfy criteria with little or no expectation that the DBs contacted or identified will perform any of the work.

6. Service-Disabled Veteran-Owned Small Business – A business in the United States which is independently owned and controlled by a service-disabled veteran(s), not dominant in its field of operation, and employs 100 or fewer employees.

7. Subconsultant- Any individual, partnership, firm, or corporation entering into a contract with the prime consultant for work under the contract, including those providing professional and other services.

8. Third-party Certifying Organization – An organization that certifies a small business, minority-owned business, women-owned business or veteran-owned small business as a diverse business. The term includes: (1) the National Minority Supplier Development Council; (2) the Women’s Business Development Enterprise National Council; (3) the Small Business Administration; (4) The Department of Veteran Affairs; (5) the Pennsylvania Unified Certification Program.

9. Veteran-owned Small Business –A small business owned and controlled by a veteran or veterans.

10. Women-Owned Business – A business owned and controlled by a majority of individuals who are women.

(c) Actions Required by Proposer during the procurement/consultant selection phase

1. Submission Requirements – Consultant Responsiveness.

- a. **Minimum Participation Level (MPL) Documentation** - If the documentation submitted with the proposal demonstrates that the proposer has identified DBs sufficient to meet the MPL established for this contract, the proposer will be deemed to have satisfied the DB requirement during this phase. The proposer is required to provide the business name and business address of each DB and supporting documentation that includes proof of certification.

If the consultant’s proposal demonstrates the consultant’s inability to meet the MPL established for this contract, the proposer shall demonstrate Good Faith Efforts with its proposal. Failure to submit the required documentation demonstrating Good Faith Efforts as further described below with the proposal may result in a rejection of the proposal.

- b. If no MPL has been established for this contract, the proposer is required to either provide a statement of intent that it will self-perform 100% of the work for the agreement, or demonstrate Good Faith Efforts to solicit subconsultants that are DBs. In either case documentation shall be provided with the proposal.

Failure to submit the required information identified above with the proposal may result in a rejection of the proposal.

2. Good Faith Effort Requirements: The documentation of Good Faith Efforts must include the business name and business address of each DB considered. Supporting documentation must also include proof of certification and any explanation of Good Faith Efforts the proposer would like the Commission to consider. Any services to be performed by a DB are required to be readily identifiable to the agreement. Good Faith efforts are demonstrated by seeking out DB participation in the project given all relevant circumstances. The Commission requires the proposer to demonstrate more than Pro Forma Efforts. Evidence of Good Faith Efforts includes, but is not limited to:

- a. Consultant solicits through all reasonable and available means the interest of all certified DBs with the capacity to perform the scope of work set forth in the agreement.
- b. The proposer must provide written notification at least 5 business days before proposals are due to allow the DBs to respond to the solicitation.
- c. The proposer must determine with certainty if DBs are interested by taking appropriate steps to follow up initial solicitations.
- d. The proposer must make efforts to select portions of the work to be performed by DBs to include, where appropriate, breaking out contract work into economically feasible units to facilitate DB participation;
- e. It is the proposer's responsibility to make a portion of the work available to DBs and, to select those portions of the work, so as to facilitate DB participation.
- f. The proposer shall provide evidence of such negotiations that include the names, addresses, and telephone numbers of DBs considered; A description of the information provided regarding the required work and services for the work selected for subconsultants; and evidence as to why additional agreements could not be reached for DBs to perform the work.
- g. Proposers cannot reject or withhold solicitation of DBs as being unqualified without sound reasons based on a thorough investigation of their capabilities.
- h. The DB's standing within its industry, membership in specific groups, organizations or associations and political or social affiliations (for example union v. non-union employee status) are not legitimate causes for the rejection or non-solicitation of proposals in the proposer's efforts to meet the Good Faith Efforts requirement.
- i. Efforts to assist interested DBs in obtaining bonding, lines of credit or insurance.

3. Actions Taken by the Commission. As part of the proposal review process, the Commission will review the submissions to determine whether the proposer has complied with Section 303 and this requirement in the selection of DB subconsultants. The Commission will determine whether the proposer has either met the MPL or provided acceptable documentation as noted above. The Commission reserves the right to contact proposers for clarification during the review and negotiation process.

If the Commission determines that the proposer has failed to either meet the MPL or provide acceptable documentation as noted above, the proposal may be rejected.

(d) Consultant Requirements During Performance of Services.

1. Replacement of a DB Subconsultant. Consultant must continue good faith efforts through completion of the contract. The obligation to make Good Faith Efforts to solicit subconsultants for any type of service extends to additional work required for any service which is identified to be performed by a DB. If at any time during the performance of the work, it becomes necessary to replace or add a subconsultant that is a DB, the consultant, as appropriate, shall immediately notify the Commission and seek approval in

writing in accordance with the Agreement of the need to replace the DB, which notice shall include the reasons for the replacement. If a prime consultant who originally indicated that it would self-perform all work subsequently decides to use a subconsultant for any work under the contract, the consultant must submit documentation of all Good Faith Efforts as to the work for which a subconsultant is obtained.

2. Records. Maintain project records as are necessary to evaluate DB compliance and as necessary to perform the reporting function addressed below. Maintain all records for a period of 3 years following acceptance of final payment. Make these records available for inspection by the Commission, its designees or agents. These records should indicate:

2.a. The number of DB and non-DB subconsultants and the type of services performed on or incorporated in this project.

2.b. The progress and efforts made in seeking out DB subconsultant organizations and individual DB consultants for work on this project to increase the amount of DB participation and/or to maintain the commitments made at the time of the proposal to DBs.

2.c. Documentation of all correspondence, contacts, telephone calls, and other contacts made to obtain the service of DBs on this project.

3. Reports. Maintain monthly reports and submit reports as required by the Commission concerning those contracts and other business executed with DBs with respect to the records referred to in subsection (e)2. above in such form and manner as prescribed by the Commission. At a minimum, the Reports shall contain the following:

3.a The number of Contracts with DBs noting the type of services provided, including the execution date of each contract.

3.b The amounts paid to each DB during the month, the dates of payment, and the overall amounts paid to date. If no payments are made to a DB during the month, enter a zero (\$0) payment.

3.c Upon request and upon completion of individual DB firm's work, submit paid invoices or a certification attesting to the actual amount paid. In the event the actual amount paid is less than the award amount, a complete explanation of difference is required.

4. Subconsultant Contracts

4.a. Subcontracts with DB firms will not contain provisions waiving legal rights or remedies provided by laws or regulations of the Federal Government or the Commonwealth of Pennsylvania or the Commission through contract provisions or regulations.

4.b. Prime consultant will not impose provisions on DB subconsultants that are more onerous or restrictive than the terms of the prime's contract with non-DBs.

4.c. Executed copies of subcontracts/purchase orders are to be received by the Commission before the commencement of work by the DB.

5. Payments to DB Subconsultants. Payments to DBs are to be made in accordance with the prompt payment requirements of Chapter 39, Subchapter D of the Procurement Code, 62 Pa.C.S. §3931 et seq. Performance of services by a DB subconsultant in accordance with the terms of the contract entitles the subconsultant to payment.

(e) Actions to be Taken by Commission After Performance of Services. Following completion of the Consultant's services, the Director of the Commission's Office of Diversity and Inclusion or his/her designee will review the overall DB participation to assess the Consultant's compliance with Section 303 and this contract. Appropriate sanctions may be imposed under 62 Pa.C.S. § 531 (relating to debarment or suspension) for a Consultant's failure to comply with Section 303 and the requirements of the contract.

**INSTALLATION OF INTELLIGENT TRANSPORTATION SYSTEMS
TRUCK PARKING MANAGEMENT SYSTEM
PROPOSAL BID SUMMARY SHEET
RFP# 19-10480-8386**

ITEM NO.	QUANTITY	UNIT	ITEM DESCRIPTION	UNIT PRICE	TOTAL ITEM COST
GENERAL					
0608-0001	1	LS	MOBILIZATION	-	\$ -
9900-0300	1	LS	TURNOVER	-	\$ -
TRUCK PARKING MANAGEMENT SYSTEM					
9900-0400	1	LS	SOFTWARE LICENSING	-	\$ -
9900-0401	1	LS	SOFTWARE CONFIGURATION AND INTEGRATION	-	\$ -
9900-0402	16	MONTH	PERFORMANCE PERIOD		\$ -
9900-0403	1	LS	TRAINING	-	\$ -
SERVICE PLAZAS					
9900-0404	1	LS	SIDELING HILL SERVICE PLAZA	-	\$ -
9900-0405	1	LS	BLUE MOUNTAIN SERVICE PLAZA	-	\$ -
9900-0406	1	LS	HIGHSPIRE SERVICE PLAZA	-	\$ -
9900-0407	1	LS	LAWN SERVICE PLAZA	-	\$ -
9900-0408	1	LS	BOWMANSVILLE SERVICE PLAZA	-	\$ -
9900-0409	1	LS	PETER J. CAMIEL SERVICE PLAZA	-	\$ -
9900-0410	1	LS	VALLEY FORGE SERVICE PLAZA	-	\$ -
9900-0411	1	LS	KING OF PRUSSIA SERVICE PLAZA	-	\$ -
9900-0412	1	LS	ALLENTOWN SERVICE PLAZA	-	\$ -
9900-0413	1	LS	HICKORY RUN SERVICE PLAZA	-	\$ -
			TOTAL PROJECT BID		\$ -
	Offeror Name:				
	Date:				
	Completed By:				

**PENNSYLVANIA TURNPIKE COMMISSION
TRUCK PARKING MANAGEMENT SYSTEM**

**ITEMIZED COST WORKSHEET
SHEET 1 OF 11**

Bid Item No.: 0608-0001	Description: MOBILIZATION	<u>UOM</u>	<u>Unit Price</u>	<u>Qty</u>	<u>Total</u>	
		Lump Sum	\$ -	1	\$ -	
Bid Item No.: 9900-0300	Description: TURNOVER	<u>UOM</u>	<u>Unit Price</u>	<u>Qty</u>	<u>Total</u>	
		Lump Sum	\$ -	1	\$ -	
Bid Item No.: 9900-0400	Description: SOFTWARE LICENSING	<u>UOM</u>	<u>Unit Price</u>	<u>Qty</u>	<u>Total</u>	
		Lump Sum	\$ -	1	\$ -	
<p>Instructions: Use the fields to the right to identify the licensing costs associated with the purchase and use of the TPMS software package. Fill in only the cells that are not highlighted. All calculations are complete and are locked. This sheet requires the entry of data for all three years.</p>	Year 1		Year 2		Year 3	
	Year 1 Total Fees	\$ -	Year 2 Total Fees	\$ -	Year 3 Total Fees	\$ -
	<u>License Name</u>	<u>Fee</u>	<u>License Name</u>	<u>Fee</u>	<u>License Name</u>	<u>Fee</u>
		\$ -		\$ -		\$ -
		\$ -		\$ -		\$ -
		\$ -		\$ -		\$ -
		\$ -		\$ -		\$ -
		\$ -		\$ -		\$ -
		\$ -		\$ -		\$ -
		\$ -		\$ -		\$ -
Bid Item No.: 9900-0401	Description: SOFTWARE CONFIGURATION AND INTEGRATION	<u>UOM</u>	<u>Unit Price</u>	<u>Qty</u>	<u>Total</u>	
		Lump Sum	\$ -	1	\$ -	
Bid Item No.: 9900-0402	Description: PERFORMANCE PERIOD	<u>UOM</u>	<u>Unit Price</u>	<u>Qty</u>	<u>Total</u>	
		Monthly	\$ -	20	\$ -	
<p>Instructions: Use the fields to the right to identify the costs associated with establishing, maintaining, and providing monthly maintenance and support of the SaaS TPMS and all detection subsystem field equipment throughout the length of the Performance Period as described in the RFP. All hosting costs are incidental to this item. For the purpose of this cost proposal, the Proposer's monthly costs for the item description above for eight months (8) in year two and twelve (12) months in year three. Fill only the cells that are not highlighted. All calculations are complete and locked.</p>	Year 2		Year 3			
	Monthly Cost	\$ -	Monthly Cost	\$ -		
	Months	8	Months	12		
	Year 2 Total	\$ -	Year 3 Total	\$ -		
Bid Item No.: 9900-0403	Description: TRAINING	<u>UOM</u>	<u>Unit Price</u>	<u>Qty</u>	<u>Total</u>	
		Lump Sum	\$ -	1	\$ -	
		Administrator/Operator Training		Maintenance Training		
		Admin/Operator Training	\$ -	Maintenance Training	\$ -	

PENNSYLVANIA TURNPIKE COMMISSION TRUCK PARKING MANAGEMENT SYSTEM SCHEDULE OF VALUES SERVICE PLAZA WORKSHEET SHEET <u> 2 </u> OF <u> 11 </u>				
Bid Item No.:		9900-0404		
Bid Item Description		SIDELING HILL SERVICE PLAZA		
Engineering:				\$ -
(Includes all design costs associated with this service plaza)				
Truck Parking Detection System				\$ -
(Includes all materials, equipment, and labor costs associated with installation of the Detection system equipment at this service plaza)				
CCTV Camera System				\$ -
(Includes all materials, equipment, and labor costs associated with installation of the CCTV system equipment at this service plaza)				
Digital/Static Hybrid Message Sign System				NA
(Includes all materials, equipment, and labor costs associated with the installation of the Digital/Static Hybrid Message Sign System)				
Maintenance and Protection of Traffic (MPT)				\$ -
(Includes all costs associated with providing the required traffic control at this service plaza during construction)				
Electrical Service				\$ -
(Includes all material, equipment, labor, and coordination to provide a complete power supply to the system components at this service plaza)				
Communication System				\$ -
(Includes all materials, equipment, labor, and coordination required to install a fully functional communication system for all system components, Note: Cellular Communication equipment will be provide by the Commission for Commission Network connectivity)				
Other:				\$ -
(Misc. items related to the construction of site: clear & grub, tree-trim, temp. shoring, sign relocations, E&S)				
ITEM TOTAL				\$ -
(MUST MATCH TOTAL ON BID SHEET)				

PENNSYLVANIA TURNPIKE COMMISSION TRUCK PARKING MANAGEMENT SYSTEM SCHEDULE OF VALUES SERVICE PLAZA WORKSHEET SHEET <u> 3 </u> OF <u> 11 </u>				
Bid Item No.:		9900-0405		
Bid Item Description		BLUE MOUNTAIN SERVICE PLAZA		
Engineering:				\$ -
(Includes all design costs associated with this service plaza)				
Truck Parking Detection System				\$ -
(Includes all materials, equipment, and labor costs associated with installation of the Detection system equipment at this service plaza)				
CCTV Camera System				\$ -
(Includes all materials, equipment, and labor costs associated with installation of the CCTV system equipment at this service plaza)				
Digital/Static Hybrid Message Sign System				NA
(Includes all materials, equipment, and labor costs associated with the installation of the Digital/Static Hybrid Message Sign System)				
Maintenance and Protection of Traffic (MPT)				\$ -
(Includes all costs associated with providing the required traffic control at this service plaza during construction)				
Electrical Service				\$ -
(Includes all material, equipment, labor, and coordination to provide a complete power supply to the system components at this service plaza)				
Communication System				\$ -
(Includes all materials, equipment, labor, and coordination required to install a fully functional communication system for all system components, Note: Cellular Communication equipment will be provide by the Commission for Commission Network connectivity)				
Other:				\$ -
(Misc. items related to the construction of site: clear & grub, tree-trim, temp. shoring, sign relocations, E&S)				
ITEM TOTAL				\$ -
(MUST MATCH TOTAL ON BID SHEET)				

PENNSYLVANIA TURNPIKE COMMISSION TRUCK PARKING MANAGEMENT SYSTEM SCHEDULE OF VALUES SERVICE PLAZA WORKSHEET SHEET <u>4</u> OF <u>11</u>				
Bid Item No.:		9900-0406		
Bid Item Description		HIGHSPIRE SERVICE PLAZA		
Engineering:				\$ -
(Includes all design costs associated with this service plaza)				
Truck Parking Detection System				\$ -
(Includes all materials, equipment, and labor costs associated with installation of the Detection system equipment at this service plaza)				
CCTV Camera System				\$ -
(Includes all materials, equipment, and labor costs associated with installation of the CCTV system equipment at this service plaza)				
Digital/Static Hybrid Message Sign System				NA
(Includes all materials, equipment, and labor costs associated with the installation of the Digital/Static Hybrid Message Sign System)				
Maintenance and Protection of Traffic (MPT)				\$ -
(Includes all costs associated with providing the required traffic control at this service plaza during construction)				
Electrical Service				\$ -
(Includes all material, equipment, labor, and coordination to provide a complete power supply to the system components at this service plaza)				
Communication System				\$ -
(Includes all materials, equipment, labor, and coordination required to install a fully functional communication system for all system components, Note: Cellular Communication equipment will be provide by the Commission for Commission Network connectivity)				
Other:				\$ -
(Misc. items related to the construction of site: clear & grub, tree-trim, temp. shoring, sign relocations, E&S)				
ITEM TOTAL				\$ -
(MUST MATCH TOTAL ON BID SHEET)				

PENNSYLVANIA TURNPIKE COMMISSION TRUCK PARKING MANAGEMENT SYSTEM SCHEDULE OF VALUES SERVICE PLAZA WORKSHEET SHEET <u> 5 </u> OF <u> 11 </u>				
Bid Item No.:		9900-0407		
Bid Item Description		LAWN SERVICE PLAZA		
Engineering:				\$ -
(Includes all design costs associated with this service plaza)				
Truck Parking Detection System				\$ -
(Includes all materials, equipment, and labor costs associated with installation of the Detection system equipment at this service plaza)				
CCTV Camera System				\$ -
(Includes all materials, equipment, and labor costs associated with installation of the CCTV system equipment at this service plaza)				
Digital/Static Hybrid Message Sign System				\$ -
(Includes all materials, equipment, and labor costs associated with the installation of the Digital/Static Hybrid Message Sign System)				
Maintenance and Protection of Traffic (MPT)				\$ -
(Includes all costs associated with providing the required traffic control at this service plaza during construction)				
Electrical Service				\$ -
(Includes all material, equipment, labor, and coordination to provide a complete power supply to the system components at this service plaza)				
Communication System				\$ -
(Includes all materials, equipment, labor, and coordination required to install a fully functional communication system for all system components, Note: Cellular Communication equipment will be provide by the Commission for Commission Network connectivity)				
Other:				\$ -
(Misc. items related to the construction of site: clear & grub, tree-trim, temp. shoring, sign relocations, E&S)				
ITEM TOTAL				\$ -
<i>(MUST MATCH TOTAL ON BID SHEET)</i>				

PENNSYLVANIA TURNPIKE COMMISSION TRUCK PARKING MANAGEMENT SYSTEM SCHEDULE OF VALUES SERVICE PLAZA WORKSHEET SHEET <u>6</u> OF <u>11</u>				
Bid Item No.:		9900-0408		
Bid Item Description		BOWMANSVILLE SERVICE PLAZA		
Engineering:				\$ -
(Includes all design costs associated with this service plaza)				
Truck Parking Detection System				\$ -
(Includes all materials, equipment, and labor costs associated with installation of the Detection system equipment at this service plaza)				
CCTV Camera System				\$ -
(Includes all materials, equipment, and labor costs associated with installation of the CCTV system equipment at this service plaza)				
Digital/Static Hybrid Message Sign System				NA
(Includes all materials, equipment, and labor costs associated with the installation of the Digital/Static Hybrid Message Sign System)				
Maintenance and Protection of Traffic (MPT)				\$ -
(Includes all costs associated with providing the required traffic control at this service plaza during construction)				
Electrical Service				\$ -
(Includes all material, equipment, labor, and coordination to provide a complete power supply to the system components at this service plaza)				
Communication System				\$ -
(Includes all materials, equipment, labor, and coordination required to install a fully functional communication system for all system components, Note: Cellular Communication equipment will be provide by the Commission for Commission Network connectivity)				
Other:				\$ -
(Misc. items related to the construction of site: clear & grub, tree-trim, temp. shoring, sign relocations, E&S)				
ITEM TOTAL				\$ -
(MUST MATCH TOTAL ON BID SHEET)				

PENNSYLVANIA TURNPIKE COMMISSION TRUCK PARKING MANAGEMENT SYSTEM SCHEDULE OF VALUES SERVICE PLAZA WORKSHEET SHEET <u>7</u> OF <u>11</u>				
Bid Item No.:		9900-0409		
Bid Item Description		PETER J. CAMIEL SERVICE PLAZA		
Engineering:				\$ -
(Includes all design costs associated with this service plaza)				
Truck Parking Detection System				\$ -
(Includes all materials, equipment, and labor costs associated with installation of the Detection system equipment at this service plaza)				
CCTV Camera System				\$ -
(Includes all materials, equipment, and labor costs associated with installation of the CCTV system equipment at this service plaza)				
Digital/Static Hybrid Message Sign System				NA
(Includes all materials, equipment, and labor costs associated with the installation of the Digital/Static Hybrid Message Sign System)				
Maintenance and Protection of Traffic (MPT)				\$ -
(Includes all costs associated with providing the required traffic control at this service plaza during construction)				
Electrical Service				\$ -
(Includes all material, equipment, labor, and coordination to provide a complete power supply to the system components at this service plaza)				
Communication System				\$ -
(Includes all materials, equipment, labor, and coordination required to install a fully functional communication system for all system components, Note: Cellular Communication equipment will be provide by the Commission for Commission Network connectivity)				
Other:				\$ -
(Misc. items related to the construction of site: clear & grub, tree-trim, temp. shoring, sign relocations, E&S)				
ITEM TOTAL				\$ -
(MUST MATCH TOTAL ON BID SHEET)				

PENNSYLVANIA TURNPIKE COMMISSION TRUCK PARKING MANAGEMENT SYSTEM SCHEDULE OF VALUES SERVICE PLAZA WORKSHEET SHEET <u> 8 </u> OF <u> 11 </u>				
Bid Item No.:		9900-0410		
Bid Item Description		VALLEY FORGE SERVICE PLAZA		
Engineering:				\$ -
(Includes all design costs associated with this service plaza)				
Truck Parking Detection System				\$ -
(Includes all materials, equipment, and labor costs associated with installation of the Detection system equipment at this service plaza)				
CCTV Camera System				\$ -
(Includes all materials, equipment, and labor costs associated with installation of the CCTV system equipment at this service plaza)				
Digital/Static Hybrid Message Sign System				NA
(Includes all materials, equipment, and labor costs associated with the installation of the Digital/Static Hybrid Message Sign System)				
Maintenance and Protection of Traffic (MPT)				\$ -
(Includes all costs associated with providing the required traffic control at this service plaza during construction)				
Electrical Service				\$ -
(Includes all material, equipment, labor, and coordination to provide a complete power supply to the system components at this service plaza)				
Communication System				\$ -
(Includes all materials, equipment, labor, and coordination required to install a fully functional communication system for all system components, Note: Cellular Communication equipment will be provide by the Commission for Commission Network connectivity)				
Other:				\$ -
(Misc. items related to the construction of site: clear & grub, tree-trim, temp. shoring, sign relocations, E&S)				
ITEM TOTAL				\$ -
(MUST MATCH TOTAL ON BID SHEET)				

PENNSYLVANIA TURNPIKE COMMISSION TRUCK PARKING MANAGEMENT SYSTEM SCHEDULE OF VALUES SERVICE PLAZA WORKSHEET SHEET <u> 9 </u> OF <u> 11 </u>			
Bid Item No.:	9900-0411		
Bid Item Description	KING OF PRUSSIA SERVICE PLAZA		
Engineering:			\$ -
(Includes all design costs associated with this service plaza)			
Truck Parking Detection System			\$ -
(Includes all materials, equipment, and labor costs associated with installation of the Detection system equipment at this service plaza)			
CCTV Camera System			\$ -
(Includes all materials, equipment, and labor costs associated with installation of the CCTV system equipment at this service plaza)			
Digital/Static Hybrid Message Sign System			NA
(Includes all materials, equipment, and labor costs associated with the installation of the Digital/Static Hybrid Message Sign System)			
Maintenance and Protection of Traffic (MPT)			\$ -
(Includes all costs associated with providing the required traffic control at this service plaza during construction)			
Electrical Service			\$ -
(Includes all material, equipment, labor, and coordination to provide a complete power supply to the system components at this service plaza)			
Communication System			\$ -
(Includes all materials, equipment, labor, and coordination required to install a fully functional communication system for all system components, Note: Cellular Communication equipment will be provide by the Commission for Commission Network connectivity)			
Other:			\$ -
(Misc. items related to the construction of site: clear & grub, tree-trim, temp. shoring, sign relocations, E&S)			
ITEM TOTAL			\$ -
(MUST MATCH TOTAL ON BID SHEET)			

PENNSYLVANIA TURNPIKE COMMISSION TRUCK PARKING MANAGEMENT SYSTEM SCHEDULE OF VALUES SERVICE PLAZA WORKSHEET SHEET <u> 10 </u> OF <u> 11 </u>				
Bid Item No.:		9900-0412		
Bid Item Description		ALLENTOWN SERVICE PLAZA		
Engineering:				\$ -
(Includes all design costs associated with this service plaza)				
Truck Parking Detection System				\$ -
(Includes all materials, equipment, and labor costs associated with installation of the Detection system equipment at this service plaza)				
CCTV Camera System				\$ -
(Includes all materials, equipment, and labor costs associated with installation of the CCTV system equipment at this service plaza)				
Digital/Static Hybrid Message Sign System				NA
(Includes all materials, equipment, and labor costs associated with the installation of the Digital/Static Hybrid Message Sign System)				
Maintenance and Protection of Traffic (MPT)				\$ -
(Includes all costs associated with providing the required traffic control at this service plaza during construction)				
Electrical Service				\$ -
(Includes all material, equipment, labor, and coordination to provide a complete power supply to the system components at this service plaza)				
Communication System				\$ -
(Includes all materials, equipment, labor, and coordination required to install a fully functional communication system for all system components, Note: Cellular Communication equipment will be provide by the Commission for Commission Network connectivity)				
Other:				\$ -
(Misc. items related to the construction of site: clear & grub, tree-trim, temp. shoring, sign relocations, E&S)				
ITEM TOTAL				\$ -
(MUST MATCH TOTAL ON BID SHEET)				

PENNSYLVANIA TURNPIKE COMMISSION TRUCK PARKING MANAGEMENT SYSTEM SCHEDULE OF VALUES SERVICE PLAZA WORKSHEET SHEET <u>11</u> OF <u>11</u>			
Bid Item No.:	9900-0413		
Bid Item Description	HICKORY RUN SERVICE PLAZA		
Engineering:			\$ -
(Includes all design costs associated with this service plaza)			
Truck Parking Detection System			\$ -
(Includes all materials, equipment, and labor costs associated with installation of the Detection system equipment at this service plaza)			
CCTV Camera System			\$ -
(Includes all materials, equipment, and labor costs associated with installation of the CCTV system equipment at this service plaza)			
Digital/Static Hybrid Message Sign System			NA
(Includes all materials, equipment, and labor costs associated with the installation of the Digital/Static Hybrid Message Sign System)			
Maintenance and Protection of Traffic (MPT)			\$ -
(Includes all costs associated with providing the required traffic control at this service plaza during construction)			
Electrical Service			\$ -
(Includes all material, equipment, labor, and coordination to provide a complete power supply to the system components at this service plaza)			
Communication System			\$ -
(Includes all materials, equipment, labor, and coordination required to install a fully functional communication system for all system components, Note: Cellular Communication equipment will be provide by the Commission for Commission Network connectivity)			
Other:			\$ -
(Misc. items related to the construction of site: clear & grub, tree-trim, temp. shoring, sign relocations, E&S)			
ITEM TOTAL			\$ -
(MUST MATCH TOTAL ON BID SHEET)			

Regional Truck Parking Information Management System (TPIMS) Data Exchange Specification Document

Version 1.3

Specification Document for Truck Parking Data Exchange

Revision History The following revision table presents the changes made for each version of this document.

Revision	Date	State/Description
1.0	February 2017	Creation based on the MAASTO TPIMS XML Data Feed memorandum from September 18 th 2016
1.1	April 2017	Added time zone field to the static feed and clarified the highway nomenclature
1.2	July 2017	Proposed changes from MAASTO TPIMS Workshop #5
1.3	August 2017	Proposed changes from the Partnership states.

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Specification Document for Truck Parking Data Exchange

Overview

This document summarizes the standard data feeds that each state will provide for their publicly and privately owned (as applicable) truck parking sites. The data elements and formatting were agreed upon by the eight states participating in the MAASTO TPIMS project, and are intended to set a standard for future projects.

There are three separate data feeds, each with their own function. The data feeds include a dynamic public feed, static public feed, and dynamic archive only feed.

Dynamic Public Feed

The dynamic public feed contains seven data fields, which are updated once every one to five minutes. They are located in this category because the information contained in the data elements needs to be updated frequently in order to provide accurate data to the user. The fields in the dynamic public feed are as follows:

JSON

Element	Type	Description
siteld	string	Unique fixed-length identifier including state, route number, route type, reference post, side of road and unique location number or name abbreviation. See more detailed description in appendix.
timeStamp	string	Provides the date and time that the site record was last updated. See more detailed data and time representation description in appendix.
timeStampStatic	String	Provides the date and time that the site static record was last updated. See more detailed data and time representation description in appendix.
reportedAvailable	string	Number of available spots shared through the data feed. The number is capped at the total number of parking spots at the site and "Low" is reported if the low threshold is reached.
trend	string	Optional. Reports whether the site is emptying, steady or filling. Accepted values: " CLEARING " / " STEADY " / " FILLING " / null . See more detailed description in appendix.
open	boolean	Will report open unless the parking site is closed to parking for maintenance or another situation. Possible values: true / false / null
trustData	boolean	This flag will report that the site is operating normally. Possible reasons for a "false" value include periods where the site is under construction while open to traffic, IT maintenance windows, or equipment failures. Possible values: true / false / null

Specification Document for Truck Parking Data Exchange

capacity	Number	Total number of parking spots within the site.
----------	--------	--

Dynamic Public Feed - example

JSON format

```
[{"siteId":"WI00094IS0012400ERSTARE53","timeStamp":"2016-08-15T20:35:15Z","timeStampStatic":"2015-05-03T12:24:19Z","reportedAvailable":"25","trend":"FILLING","open":true,"trustData":"true"}]
```

Dynamic Public Feed - live URL

<https://transportal.cee.wisc.edu/TPIMS/dynamic>

Static Public Feed

The static public feed contains 19 data fields, which are updated on an as-needed basis. They are located in this category because the information is not expected to change very often. This allows for more efficient use of bandwidth since the information in the static public data feed only needs to be pulled one time after a change is made. As presented above, the dynamic feed contains a timestamp of when the static feed was last updated. The fields in the static public data feed are as follows:

JSON

Element	Type	Description
siteId	string	Unique fixed-length identifier including state, route number, route type, reference post, side of road and unique location number or name abbreviation. See more detailed description in appendix.
timeStamp	string	Provides the date and time that the site record was last updated. See more detailed data and time representation description in appendix.
relevantHighway	string	Provides the highway from which the rest area can be accessed. See highway nomenclature in appendix.

Specification Document for Truck Parking Data Exchange

referencePost	string	Provides the Reference Post (mile marker) for the center of the rest area or interchange.
exitID	string	At interchanges, the designated interchange number is provided. For rest areas and weigh stations that do not have an exit identification the value will be set to null.
directionOfTravel	string	Text indicating the direction(s) of travel that can access the site. For sites that can be accessed by either direction of travel, a bidirectional identifier such as "NS" or "EW" can be used.
name	string	Name of facility as text (e.g., Rest Area or Flying J Truck Stop).
location	array	This array contains the seven following data elements about the site's physical location:
latitude	number	The latitude in a float format.
longitude	number	The longitude in a float format.
streetAdr	string	Text based address number and street name.
city	string	Name of city in which the parking area is located. If not in a city, the county name can be used (e.g., Johnson County).
state	string	Abbreviation for state in which the parking area is located.
zip	string	ZIP code of the location
timeZone	string	Time zone
ownership	string	Text used to indicate whether a parking site is privately owned or publicly owned. Accepted values: "PR" / "PU"
capacity	number	Total number of parking spots within the site.
amenities	Array of strings	Optional. List of text based amenities descriptions. Data structure would allow a varying number of amenities to be listed.

Specification Document for Truck Parking Data Exchange

images	Array of strings	Optional. Provides a link to an image file on a server that shows the lot status visually. This is only used if images are being captured and shared from a surveillance camera, otherwise it will be null.
logos	Array of strings	Optional. Provides a link to an image file on a server that shows the private truck stop logo or TPIMS logo.

Static Public Feed - example

JSON format

```
[{"siteId":"WI00094IS0012400ERSTARE53","timeStamp":"2016-08-15T20:35:15Z",
"relevantHighway":"I94","referencePost":"123","exitID":"24","directionOfTravel":"0E","name":"House of the happy
trucker","location":{"latitude":43.0000,"longitude":-89.0000,
"streetAdr":"34 State
Street","city":"Madison","state":"WI","ZIP":"53703"},"ownership":"PU",
"capacity":25,"amenities":["Shop","Showers","ATMs"],"images":["http://.../image1.jpg","http://.../image2.jpg","http://.../image3.jpg"],"logos":["http://.../logo1.jpg","http://.../image2.jpg"]}]
```

Static Feed - live URL

<https://transportal.cee.wisc.edu/TPIMS/static>

Dynamic Archive Only Feed

The dynamic archive only feed will be sent to MAFC for performance tracking and can be used internally for each state. The first seven data fields are the same as those in the dynamic public feed, and the last three are additional fields for use for performance measures. The fields will be updated every one to five minutes like the dynamic public data fields. The fields in the dynamic archive only data feed are as follows:

JSON

Element	Type	Description
siteld	string	Unique fixed-length identifier including state, route number, route type, reference post, side of road and

Specification Document for Truck Parking Data Exchange

		unique location number or name abbreviation. See more detailed description in appendix.
timeStamp	string	Provides the date and time that the site record was last updated. See more detailed data and time representation description in appendix.
timeStampStatic	String	Provides the date and time that the site static record was last updated. See more detailed data and time representation description in appendix.
reportedAvailable	string	Number of available spots shared through the data feed. The number is capped at the total number of parking spots at the site and “Low” is reported if the low threshold is reached.
trend	string	Optional. Reports whether the site is emptying, steady or filling. Accepted values: “ CLEARING ” / “ STEADY ” / “ FILLING ” / null . See more detailed description in appendix.
open	boolean	Will report open unless the parking site is closed to parking for maintenance or another situation. Possible values: true / false / null
trustData	boolean	This flag will report that the site is operating normally. Possible reasons for a “false” value include periods where the site is under construction while open to traffic, IT maintenance windows, or equipment failures. Possible values: true / false / null
verificationCheck	Boolean	This flag will note that the report value of available spots is based on a manual reset. Used for performance measures and system monitoring, not for public consumption. Possible values: true / false / null
lowThreshold	Number	If the parking spot availability in the lot drops below this value, the data feed will report “Low” instead of a number.
trueAvailable	Number	This will be the actual number of spots the detection system is reporting is available. This number can exceed the maximum number of spots and will report actual values under the “Low” threshold or even

Specification Document for Truck Parking Data Exchange

		negative values. Used for performance measures and system monitoring, not for public consumption.
capacity	Number	Total number of parking spots within the site.

Dynamic Archive Only Feed - example

JSON format

```
[{"siteId":"WI00094IS0012400ERSTARE53","timeStamp":"2016-08-15T20:35:15Z","timeStampStatic":"2015-05-03T12:24:19Z","reportedAvailable":"12","trend":"FILLING","open":"true","trustData":"true","verificationCheck":"false","lowThreshold":5,"trueAvailable":12}]
```

Dynamic Archive Only Feed - live URL

<https://transportal.cee.wisc.edu/TPIMS/archive>

Appendix

Location Identifier

Location Identifier (Fixed Length)			
Field Position	Field Size	Filed Name	Description
0	2	State	Two letter state abbreviation.
2	5	Route number	Five digits with zeros padded to the left.
7	2	Route type	Two letter abbreviation (e.g., IS for interstate, US for US highway, SH for state highway, etc.).
9	6	Reference Post	Also referred to as Mile Marker. Six-digit number with implied 1/10 decimal point and zeros padded to the left.
15	2	Side of Road	Two letter designation indicating the direction(s) of travel that can access the site. Site accessed from one direction are "ON", "OS", "OE" or "OW". For sites that can be accessed by either direction of travel, a bi-directional identifier such as "NS" or "EW" can be used.
17	8	Unique Site Designation	Eight characters unique location number or name abbreviation to differentiate between multiple truck stops at the same interchange.

Example: MI00094IS0008450WGALESBRA is the Galesburg Rest Area on westbound I- 94 in Michigan near reference post 84.5.

Date and Time Representation

The timestamp follows the standard ISO 8601 extended format and is represented in UTC with a combined date and time representation. Therefore, the date will read yyyy-mm-ddThh:mm:ssZ where:

- **yyyy:** Four-digit year
- **mm:** Two-digit month
- **dd:** Two-digit day
- **'T':** marker for Time
- **hh:** Two-digit hour expressed in 24-hour time
- **mm:** Two-digit minute
- **ss:** Two-digit second
- **'Z':** represents "Zulu time", which is the zone designator for zero UTC offset.

Specification Document for Truck Parking Data Exchange

The static data feed contains the time zone where the rest area is located for ease of interpretation by the data consumer.

Highway Nomenclature

Following the MAASTO data standard, the highway nomenclature uses the number, followed by “IS” if it’s an interstate, “US” if it is a US highway or “SH” if it is a state highway. The order to be used for concurrent highways is Interstate Highways, U.S. Highways, state highways, and finally county roads, and within each class by increasing numerical value.

Trending Calculation

The trend calculation is optional, and is intended to provide more information about the current state of available parking. The thresholds for FILLING and CLEARING should be user adjustable, as individual sites may operate uniquely and require independent adjustments.

The trending state is based on calculating vehicle flow over the past 30 minutes. For each reporting cycle the difference (delta) in availability is divided by capacity to determine a delta percentage. Flow is then calculated by summing the delta percentages over the past 30 minutes. For a system with 5-minute reporting cycles:

Delta and Flow Calculation

$\%Delta_n$ = Availability Delta, expressed as a percentage, where “n” marks the elapsed time since the measured interval in minutes.

$$\%Delta_n = [(Availability_n - Availability_{n-5}) / Capacity]$$

$\%Delta_0$ = Truck Parking Availability Delta % between now and 5 minutes ago (most recent data point)

$\%Delta_5$ = Truck Parking Availability Delta % between 5 minutes ago and 10 minutes ago

$\%Delta_{10}$ = Truck Parking Availability Delta % between 10 minutes ago and 15 minutes ago

$\%Delta_{15}$ = Truck Parking Availability Delta % between 15 minutes ago and 20 minutes ago

$\%Delta_{20}$ = Truck Parking Availability Delta % between 20 minutes ago and 25 minutes ago

$\%Delta_{25}$ = Truck Parking Availability Delta % between 25 minutes ago and 30 minutes ago

$$\%Flow = \%Delta_0 + \%Delta_5 + \%Delta_{10} + \%Delta_{15} + \%Delta_{20} + \%Delta_{25}$$

Thresholds

Threshold for the trend states are based on the %Flow calculation. It is recommended that these are adjustable per site, and that each site is observed during the burn-in period to adjust if too much “bouncing” between trending states is occurring. Expressed in terms of %Flow, the recommended defaults are:

“Clearing”: $Flow \geq 4.5\%$

“Steady”: $-4.5\% < Flow < 4.5\%$

“Filling”: $Flow \leq -4.5\%$

Specification Document for Truck Parking Data Exchange

Example

The below table shows 35 reporting cycles of data, every five minutes, for a facility with a capacity of 50 vehicles:

Time	Availability	Delta	% Delta	%Flow	Flow State
12:00	20				
12:05	18	-2	-4.0%		
12:10	10	-8	-16.0%		
12:15	9	-1	-2.0%		
12:20	8	-1	-2.0%		
12:25	8	0	0.0%		
12:30	9	1	2.0%	-22.0%	Filling
12:35	7	-2	-4.0%	-22.0%	Filling
12:40	3	-4	-8.0%	-14.0%	Filling
12:45	-1	-4	-8.0%	-20.0%	Filling
12:50	-1	0	0.0%	-18.0%	Filling
12:55	0	1	2.0%	-16.0%	Filling
13:00	0	0	0.0%	-18.0%	Filling
13:05	1	1	2.0%	-12.0%	Filling
13:10	1	0	0.0%	-4.0%	Steady
13:15	1	0	0.0%	4.0%	Steady
13:20	1	0	0.0%	4.0%	Steady
13:25	1	0	0.0%	2.0%	Steady
13:30	1	0	0.0%	2.0%	Steady
13:35	2	1	2.0%	2.0%	Steady
13:40	4	2	4.0%	6.0%	Clearing
13:45	6	2	4.0%	10.0%	Clearing
13:50	7	1	2.0%	12.0%	Clearing
13:55	6	-1	-2.0%	10.0%	Clearing
14:00	8	2	4.0%	14.0%	Clearing
14:05	7	-1	-2.0%	10.0%	Clearing
14:10	6	-1	-2.0%	4.0%	Steady
14:15	7	1	2.0%	2.0%	Steady
14:20	7	0	0.0%	0.0%	Steady
14:25	7	0	0.0%	2.0%	Steady
14:30	9	2	4.0%	2.0%	Steady

Specification Document for Truck Parking Data Exchange

14:35	12	3	6.0%	10.0%	Clearing
14:40	16	4	8.0%	20.0%	Clearing
14:45	18	2	4.0%	22.0%	Clearing
14:50	22	4	8.0%	30.0%	Clearing

As shown in the table, %Delta is computed beginning with the 2nd reporting cycle. The first %Flow calculation starts with the 7th reporting cycle, utilizing and 5 most recent %Delta values.

For the 12:30 reporting cycle:

$$\begin{aligned}\%Flow &= \%Delta_{12:30} + \%Delta_{12:25} + \%Delta_{12:20} + \%Delta_{12:15} + \%Delta_{12:10} + \%Delta_{12:05} \\ &= 2.0\% + 0.0\% - 2.0\% - 2.0\% - 16.0\% - 4.0\% \\ &= -22.0\% \text{ (Filling)}\end{aligned}$$

For the 13:55 reporting cycle:

$$\begin{aligned}\%Flow &= \%Delta_{13:55} + \%Delta_{13:50} + \%Delta_{13:45} + \%Delta_{13:40} + \%Delta_{13:35} + \%Delta_{13:30} \\ &= -2.0\% + 2.0\% + 4.0\% + 4.0\% + 2.0\% + 0.0\% \\ &= 10.0\% \text{ (Clearing)}\end{aligned}$$



Truck Parking Management System Concept of Operations

FINAL

August 23, 2018

Addendum 1 – March 14, 2019

Prepared by:  **MCMAHON**
TRANSPORTATION ENGINEERS & PLANNERS

Assistance from:

JACOBS

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List of Acronyms

Acronym	Name
511	PA's Traveler Information Number
ATMS	Advanced Transportation Management System
ATRI	American Transportation Research Institute
Caltrans	California Department of Transportation
CCTV	Closed Circuit Television
ConOps	Concept of Operations
DMS	Dynamic Message Sign
DOT	Department of Transportation
DSRC	Dedicated Short Range Communications
DTPS	Dynamic Truck Parking Signs
FDOT	Florida Department of Transportation
FHWA	Federal Highway Administration
FMCSA	Federal Motor Carrier Safety Administration
GOST	Goals, Objectives, Strategies and Tactics
GPS	Global Positioning System
IT	Information Technology
MAASTO	Mid America Association of State Transportation Officials
MDOT	Michigan Department of Transportation
MP	Milepost
MUTCD	Manual for Uniform Traffic Control Devices
MVDS	Microwave Vehicle Detection System
NASTO	National Association of Truck Stop Operators
ODOT	Ohio Department of Transportation
OOIDA	Owner Operator Independent Drivers Association
PennDOT	Pennsylvania Department of Transportation
PMTA	Pennsylvania Motor Trucking Association
PSP	Pennsylvania State Police
PTC	Pennsylvania Turnpike Commission
RAPIDS	Rest Area Parking Information Delivery System
RFID	Radio Frequency Identification
RFP	Request for Proposal
TIGER	Transportation Investment Generating Economic Recovery
TPIMS	Truck Parking Information Management System (MAASTO)
TPMS	Truck Parking Management System (PTC)
Trip/TripTalk	PA Turnpike Commission's Traveler Information Web Service and Mobile application
TSPS	Truck Specialized Parking Services - mobile application
V2I	Vehicle to Infrastructure
VDOT	Virginia Department of Transportation
XML	Extensible Markup Language

Addendum 1 – March 14, 2019

Since the acceptance of the Final Concept of Operations document on August 23, 2018, additional internal discussions have resulted in alternations to the document. The changes to the document are detailed below and should be considered when reviewing the information provided throughout all sections.

- The initial project will be deployed at the six service plazas that are identified in the final ConOps (Highspire, Lawn, Bowmansville, Peter J. Camiel, Valley Forge, and King of Prussia) and an additional four plazas (Sideling Hill, Blue Mountain, Allentown and Hickory Run).
- The initial project will forego the use of digital/static hybrid signs along the mainline (and Northeast Extension) of the Turnpike. In lieu of these signs, existing DMS will be utilized to provide parking information to en-route truckers. Digital/static hybrid signs will still be utilized within service plazas to provide truck parking availability information where auxiliary truck parking lots are present.

1 Introduction

This document defines the Pennsylvania Turnpike Commission’s (PTC) Concept of Operations (ConOps) for a regional Truck Parking Management System (TPMS) and potential systemwide deployment. This system is intended to help alleviate the truck parking issues experienced across the system. A 2013 draft study, “Pennsylvania Turnpike Mainline Truck Parking Study,” investigated and quantified the existing truck parking shortfall on the PA Turnpike. It inventoried use of existing facilities and identified that a shortfall of 890 spaces existed, and that the shortfall was expected to grow to 1,150 spaces within a ten-year period. The lack of Truck Parking availability along the PA Turnpike corridor has contributed to illegal parking which creates unsafe conditions. This lack of truck parking availability is an issue that expands beyond the PA Turnpike; these problems are seen throughout Pennsylvania and across the country.

A separate 2016 study conducted by the PA Turnpike, “Systemwide Truck Parking Improvement Study,” built upon the aforementioned 2013 study and resulted in recommendations to expand truck parking capacity along the Turnpike Mainline and Northeast Extension. Additionally, pursuit of ITS applications was recommended to assist truckers to locate available parking as well as maximize the use of existing capacity. The study identified \$2.1 million of Federal Highway Administration funding originally awarded to PennDOT for a Rest Area Parking Information Delivery System (RAPIDS) project. This funding has since been secured by the PTC and will be utilized to finance the initial deployment of the PTC TPMS.

2 Document Overview

The TPMS ConOps provides a high-level understanding of a proposed system to disseminate real-time truck parking availability information collected from parking facilities across the Turnpike mainline. The document is organized as follow:

Scope details the purpose of the system; defines the geographic extents of the system; and highlights major objectives and goals of the system.

Reference Documents provides a list of documents that were referenced in developing this document.

Background provides a summary of background research conducted by the PTC prior to the authoring of this document, and insight into why this project is being completed.

User-Oriented Operational Description identifies the system’s stakeholders and primary actors and what their roles are in operating the system.

Operational Needs defines the needs that the project must satisfy.

System Overview provides a general description of what the system will do, when and how.

Operational and Support Elements provides a description of the required physical operational and support elements required to deploy and maintain the system.

Operational Scenarios narratively depicts operational flows for users and operators of the system.

Systems Engineering

The Systems Engineering approach is a multi-step verification process that is followed through the development, implementation/deployment, and operation stages of an ITS project. The “V” Diagram, shown in **Figure 1**, depicts the typical System Engineering process where each step on the down slope (left side) of the “V” is verified or validated by the step on the corresponding position on the up slope (right side) of the “V”. The Systems Engineering approach is a Federal Highway Administration requirement for any ITS project that uses federal funds.

A ConOps is one step in the overall Systems Engineering process, and focuses on:

- What** – What are the known elements and the high-level capabilities of the system?
- Where** – Where are the geographical and physical extents of the system?
- When** – What is the time-sequence of activities that will be performed?
- How** – What resources do we need to design and build the system?
- Who** – Who will operate, utilize, and benefit from the system?
- Why** – Why is the system being deployed?

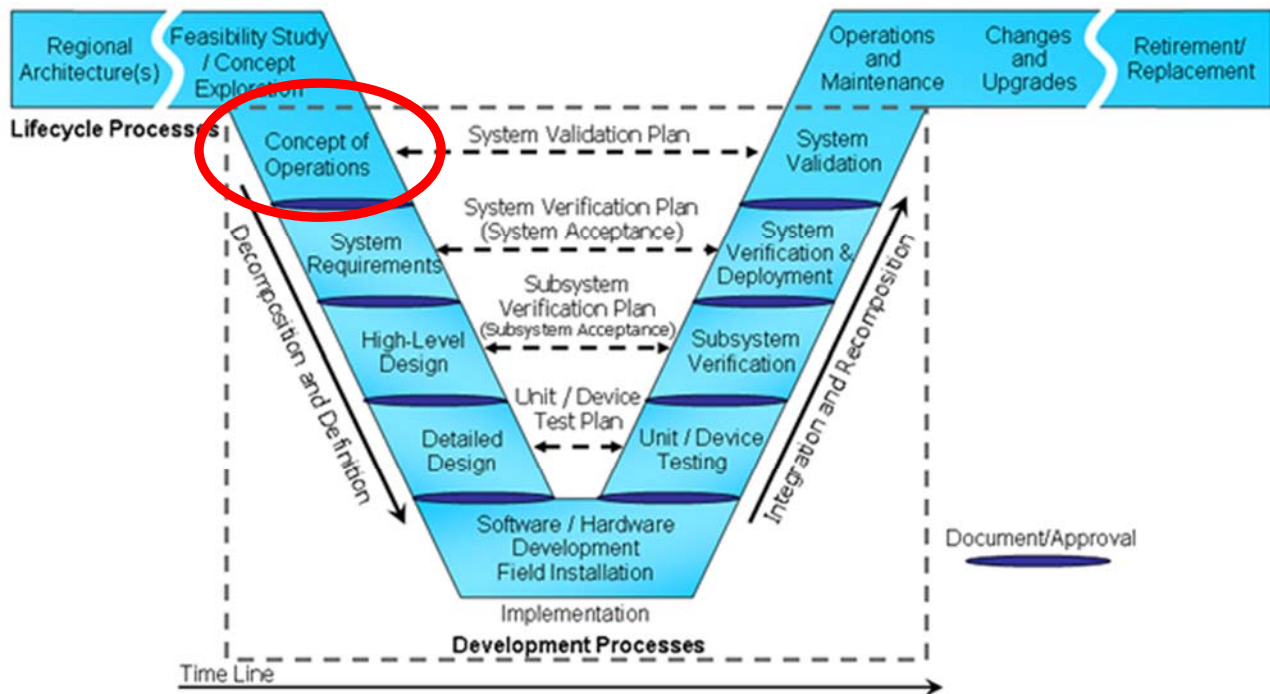


Figure 1: Systems Engineering Process - "V" Diagram

3 Scope

With the truck parking capacity issues faced by the Turnpike, it is clear that innovative techniques to manage truck parking across the Turnpike system are necessary to maximize the utilization of existing capacity as well as minimize illegal and dangerous truck parking instances. The deployment of a TPMS to manage the truck parking facilities will help maximize utilization and minimize illicit parking.

A TPMS is planned to be deployed at six service plazas on the PA Turnpike mainline between Harrisburg, Pennsylvania and the New Jersey state line. The system must be scalable by design to be capable of expansion to the remainder of the Turnpike mainline, Northeast Extension, or other facilities in the future. The system will collect and disseminate real-time parking availability to drivers through a variety of outlets including: Dynamic Message Signs (DMS) or digital/static hybrid signs, smartphone applications, traveler information websites, and others through an external data stream. The information will provide truck drivers the ability to make safer and smarter parking decisions.

The PA Turnpike Commission secured funding that was originally awarded to PennDOT to implement the TPMS. These funds will be utilized to deploy the TPMS over the eastern region of the mainline with the intent to expand the program, if successful. The scope of the system will include the following:

As part of the initial deployment, the geographical extents of the system will include the management and monitoring of truck parking facilities at six (6) service plazas located between the Harrisburg East Interchange and the New Jersey state line:

- Highspire Service Plaza (Milepost 249.7 Eastbound)
- Lawn Service Plaza (Milepost 258.8 Westbound)
- Bowmansville Service Plaza (Milepost 289.9 Eastbound)
- Peter J. Camiel Service Plaza (Milepost 304.8 Westbound)
- Valley Forge Service Plaza (Milepost 324.6 Eastbound)
- King of Prussia Service Plaza (Milepost 328.4 Westbound)

The TPMS collected data will be disseminated through as many existing systems as practical:

- PA511/TripTalk
- PA Turnpike website
- The system will allow for data to be shared to external stakeholders and other third parties (e.g. third-party applications, GPS navigation system providers, PennDOT, etc.) in a data format consistent with other Truck Parking Management Systems within the region of the country.

The TPMS project concept involves:

- Collection of truck parking availability data
- Data processing and aggregation
- Dissemination of truck parking availability information to:
 - End Users (drivers, dispatchers)
 - Third Parties
 - Any neighboring states with truck parking systems (possibly the MAASTO group)

4 Referenced Resources

PennDOT RAPIDS - Truck Parking Initiative Grant Application (2008)

Pennsylvania Department of Transportation

This document was utilized to identify the intent and scope of PennDOT’s proposed use of the funding that was transferred to the PTC.

MAASTO TPIMS Project Concept of Operations (9/2016)

MAASTO (prepared by Michigan Department of Transportation)

This document was utilized as a resource for the PTC ConOps document format and provided examples for content and logical flow of the sections.

Mainline Truck Parking Study (2013 Draft) and Systemwide Truck Parking Improvement Study (2016-Final)

Pennsylvania Turnpike Commission

These documents were referenced to detail findings for truck parking specific to the Turnpike. The information provided a foundation for identifying the section of the Turnpike system with the largest need.

Developing and Using a Concept of Operations in Transportation Management Systems (2005)

USDOT - Federal Highway Administration

The document was utilized as a guide for developing this Concept of Operations document.

Managing Critical Truck Parking Case Study – Real World Insights from Truck Parking Diaries (2016) – Boris, Caroline and Johnson, Matthew

American Transportation Research Institute

Referenced survey and collected data for the PTC completed State of the Practice Review.

Managing Critical Truck Parking Tech Memo #1: Commercial Driver Perspectives on Truck Parking (2015) - Boris, Caroline and Johnson, Matthew.

American Transportation Research Institute

Referenced survey and collected data for the PTC completed State of the Practice Review.

Truck Parking and Traffic on I-5 in California: Analysis of a Clipboard Survey and Annual Average Daily Traffic Data (2012) - Martin, Elliot W. and Shaheen, Susan A.

University of California, Berkeley, Transportation Sustainability Research Center

Referenced survey and collected data for the PTC completed State of the Practice Review.

5 Background

5.1 GOST Analysis

A GOST (Goals, Objectives, Strategies, and Tactics) Analysis workshop was held by the PTC on May 15, 2017 to collect the thoughts of internal stakeholders with respect to a Truck Parking Management System. The workshop included representatives from all of the PTC departments that would be impacted or benefit from the TPMS: Traffic, Operations, IT, Communications, Concession Services, and Roadway. **Table 1** summarizes the information collected in this workshop.

Table 1: GOST Analysis Summary

Goal	Objectives	Strategies	Tactics
<ul style="list-style-type: none"> Provide real-time, accurate, reliable truck parking information to all users and stakeholders both en-route on roadway and in vehicle to encourage safe and improved truck parking practices. 	<ul style="list-style-type: none"> Reduce and eliminate all truck parking on off-ramps, shoulders, pull offs, and in unmarked areas of service plazas. Provide advance notice to truckers in regional sections. i.e. provide information for all parking opportunities upstream – regionally. Provide an effective parking management system while not eliminating any parking spaces for the sake of the Truck Parking Management System. Keep truckers on the Turnpike and encourage safety and improved truck parking practices. 	<ul style="list-style-type: none"> Determine useful data and how to effectively present it. Utilize a system that requires limited validation – minimal manual repetitive calibration. Coordinate with PTC physical parking expansion plans. Ensure that the system used is compatible with the up and coming technologies (i.e. DSRC). Parking information provided will be PTC specific. Off system parking information will not be disseminated by the PTC system. Explore opportunities to demonstrate a benefit to staying on the Turnpike. Identify technologies and operational strategies that meet the objective of the system cost effectively. Ensure information that is disseminated is clear and easy to understand. 	<ul style="list-style-type: none"> Develop a concept of operations (systems engineering approach). Develop functional and system requirements for the TPMS using the systems engineering approach to ensure validation. Procure and deploy a system that is scalable, provides open data, integrate-able and Connected Vehicle ready. Provide external data feeds to third party app developers, external agencies and organizations. Select and install non-intrusive infrastructure (video – traditional/infrared, proximity detection, other) to collect information. Leverage existing infrastructure. Require flexibility in how the system operates based on conditions (i.e. normal conditions vs. weather/incident conditions) Be aware of and follow current version of MUTCD for sign layouts and messages. Select and install information dissemination infrastructure to provide information to the truckers (DMS, DMS/Static sign combinations, future DSRC use, third party data feeds) Rollout system updates/system phases for the entire system extent, not piecemeal. Consider weather and incident information as well as historical data in predictive mode of operation. Develop and utilize a communications plan to educate the public, set expectations, and clearly define how the system is operated.

5.2 State of the Practice Review

As part of the TPMS development effort, the PTC completed a State of the Practice review to determine national state of the practices for truck parking management system deployments across the country including truck detection, methods of driver notification, and other aspects of a successful TPMS.

As part of this effort, research was completed to find previous studies on the topic and discover the current industry leaders. Outreach to state transportation officials and other industry leaders resulted in conference calls, WebEx meetings, and site visits. In addition to our own findings, the Federal Highway Administration (FHWA) Office of Freight Operations was also consulted for their guidance on best in class states and other lessons learned from a national perspective.

With recent growth in commercial truck travel coupled with tightening of hours of service regulations, truck drivers face a critical shortage of parking. This shortage often finds fatigued drivers searching for extended periods of time for safe, legal parking spots. Too often, drivers settle for illicit alternatives such as freeway and ramp shoulders, pull-off areas, or shopping center parking lots. Drivers often waste large amounts of otherwise productive time, either from searching for available parking or by stopping prior to reaching the end of their drive time for the day for fear of not being able to find a space down the road.

To combat these problems, states have begun to use a variety of methods to detect truck parking availability at their rest areas and broadcast that information to truckers so that they can make informed decisions and maximize the amount of parking available to them. Parking detection can vary from simple in/out methods to in-ground sensors and sophisticated video methods. The way this data is then distributed also varies greatly, from DMS, to apps, websites, and coordination with dispatchers.

American Transportation Research Institute Studies

The American Transportation Research Institute (ATRI) has funded a series of reports over the last few years that have studied a variety of issues impacting the trucking industry.

A 2016 ATRI study¹ surveyed drivers and determined some of the thought process that went into their selection of overnight parking sites. Over 70% of drivers spent their 10-hour mandated breaks at private truck stops while less than 10% used public rest areas. This discrepancy is likely due to the larger amount of spaces available at private locations though it also could be influenced by the relative lack of amenities at public sites.

Table 2 shows the complete data for stop locations for 10-hour required breaks from the 2016 ATRI Study.

¹ Boris, Caroline and Brewster, Rebecca. *Managing Critical Truck Parking Case Study – Real World Insights from Truck Parking Diaries*. American Transportation Research Institute, December 2016.

Table 2: Stop Locations for 10-Hour Required Breaks

Location Type	Percent of Responses
Private Truck Stop	71.4%
Public Rest Area	9.6%
Customer	8.9%
Business	4.3%
Terminal	4.1%

Unsurprisingly, the most important factor cited in determining where to park was the proximity to the driver’s route and/or destination, but the second largest influence was the availability of restrooms and showers. **Table 3** shows the complete data from this survey for factors influencing where drivers stop for 10-hour required breaks, which includes other factors such as expected parking availability, security, and various amenities.

Table 3: Factors Influencing Where Drivers Stop for 10-Hour Required Breaks

Important Factor	Percent of Responses
Proximity to Route/Destination	96.5%
Restroom>Showers	79.8%
Expected Parking Availability	75.5%
Width of Parking Space/Ease of Access	31.9%
Restaurant	30.5%
Security	20.3%
Company Policy/Loyalty Program	18.1%
Internet	6.9%
Laundry	4.0%
Maintenance/Service Center	3.7%
Weather Conditions	3.6%

The study found that drivers wasted an average of 56 minutes of available drive time per day by parking early rather than risking not finding a space farther down the road. This reduction in productivity equates to a loss of 9,300 revenue-earning miles annually, equating to lost wages of \$4,600 per year. This could be up to 10 percent of a driver’s annual income.

One issue the reports touch on is truck parking reservation systems. Reservations are used at many private lots and a few state DOTs and Turnpike authorities have experimented with them at their own sites. Research shows that many truck drivers are reluctant to spend money on reservations; a 2015

study² from the ATRI showing approximately 50% would not be willing to pay anything for reservations. Of the drivers that had used a reservation system, only about 15% had the fees covered by their carrier; the remaining drivers paid on their own, according to the 2015 study. Some drivers in this study also noted that the presence of reserved spaces in lots effectively reduced the number of spaces available, observing that they often go unused. This reinforces the limited appeal to drivers for paying to ensure they have a space to park. The added responsibility on the lot owner and resources needed to police these reserved spaces, combined with the limited income the spaces generate, results in minimal benefit to introducing such a system.

FHWA

Initial outreach into truck parking management practices included a conference call with a Senior Freight Specialist with FHWA and a leader in their Truck Parking Management endeavors. He noted that camera detection has been the most accurate and reliable method if funds are available. It was stated that there are many existing methods of distributing parking data via apps and dispatchers so there is limited need for agencies to develop their own apps and websites. He instead stated that it is more beneficial to release the data as an open source feed so that existing apps and dispatchers can use it. This simplifies the responsibilities of the TPMS owner as well as reducing the amount of data sources that a long-haul trucker must concern themselves with as they travel through multiple states. FHWA recommended Michigan and Florida as two industry leaders which would be ideal for site visits by the PA Turnpike team.

Michigan

A site visit to meet with Michigan DOT (MDOT) was completed on September 21, 2017. The team met with the DOT's truck parking leader and one of their ITS Engineers. Michigan was one of the early leaders in deploying TPMS technology. They currently have parking detection installed at five (5) public rest stops and seven (7) private truck stops along I-94 from the Indiana state line to a location near the city of Jackson in the middle of the state.

Michigan is one of eight (8) states from the Mid America Association of State Transportation Officials (MAASTO) that are part of the current Truck Parking Information Management System (TPIMS) project which, through a TIGER grant, involves the development of a coordinated truck parking management solution in the Midwest region. Means of detection and notification can be uniquely defined within each state, but the information from each state will be collected through standard XML feeds and shared via a privately-operated driver information website and app, Truck Specialized Parking Services (TSPS). Through this project, Michigan will expand their truck parking sites east along I-94 to Port Huron at the Canadian border.

² Boris, Caroline and Johnson, Matthew. *Managing Critical Truck Parking Tech Memo #1: Commercial Driver Perspectives on Truck Parking*. American Transportation Research Institute, September 2015.

All of the locations from the initial pilot project utilize in/out counting, with in-ground detection used at the rest areas and video detection used at the private lots. Michigan plans to continue using in/out counting at the TPIMS sites, though is experimenting now with new camera-based detection. This technology is manufactured by Quantum Signal, a company who has mostly worked in the defense industry. Their technology pairs off-the-shelf IP cameras with customized programs which provide enhanced in/out counting capabilities by keeping track of which specific vehicles have entered and exited the facility. Michigan is also experimenting with delivering truck parking information via Dedicated Short-Range Communications (DSRC). Select trucks are equipped with tablets with text to speech capabilities who can receive the data in-cab information on parking availability.

The collected data is shown on static signs which have digital displays for the number of spaces available at the next three (3) upstream parking locations, as shown in **Figure 2**. These signs are placed a maximum of 30 minutes or 30 miles upstream from the farthest destination on the sign. This policy is in place due to concerns that the number of available spaces could change too much prior to a trucker's arrival at the lot if it's placed farther away. In discussions during the site visit, it was stated that placing signs at farther distances upstream could be reasonably done on a toll road such as the PA Turnpike, which has fewer interchanges and truck parking sites than a traditional interstate highway. The data on the signs updates approximately every 3-5 minutes. Private truck parking locations are displayed on the sign only by their Exit number. This convention is intentional to remove perception of advertising. Furthermore, the addition or removal of participating private lots would not require an update or replacement of the sign.



Figure 2: Truck parking sign on I-94 in Michigan
(photo courtesy of MDOT)

Additionally, truck parking data is broadcast through MDOT's existing driver information website and app (MiDrive). MiDrive provides a map-based interface where truckers can see public and private truck parking facilities and find the total number of spaces at each location, as well as the current number of open spaces.

When preparing for the initial pilot project, MDOT reached out to trucking companies and major freight industry organizations for stakeholder engagement. They also developed a brochure which they placed at rest areas with information on the upcoming project. They also provided the brochures to state police so that they could distribute them to truck drivers who were parked in unapproved locations. MDOT is also considering the use of billboards to advertise their TSPS to the public.

Florida

A site visit was also completed with Florida Department of Transportation (FDOT) on October 18-19, 2017. The PA Turnpike team visited the District 2 Regional Traffic Management Center (RTMC) and two (2) TPMS pilot sites. The Turnpike team was joined by a group led by FDOT's Commercial Vehicle Operations Manager, and District 2 TSM&O Program Manager.

Over the last five (5) years, Florida has completed a few pilot TSPS projects. The first such site visited was located at the St. Johns Rest Area along I-95, south of Jacksonville. This site was chosen by FDOT for the pilot due to institutional knowledge of ongoing nighttime truck parking issues there. Prior to the implementation of a TSPS there, counts on two (2) evenings in 2014 showed volumes of 93 and 85 parked trucks despite only 73 marked parking spaces. The excess trucks parked in unofficial spots or along the shoulders of the ramps to and from the rest area. FDOT personnel quickly installed a low-cost system (approximately \$18,000) which included the following layout:

- Two (2) Microwave Vehicle Detection Systems (MVDS) – one at ingress and the other at egress of the rest area truck parking lot
- One (1) Closed Circuit Television (CCTV) for verification – mounted on the rest area building exterior
- One (1) static sign with digital message panels to display number of parking spots available
- Wireless and wired communication equipment
- One (1) solar power panel for the truck parking availability sign

The implementation of this TSPS had a tremendous effect on overflow truck parking. Minimal parking on shoulders and ramps was observed in the after study. One of the key points that made this particular project successful was that the signage was placed directly upstream of an exit which includes large private truck stops with ample parking which was previously underused. As a result of the newly deployed system, when a driver sees that parking availability at the public rest area is limited, they can exit and safely use the private lots instead.

The other pilot location that was visited was the Columbia County rest area, north of Gainesville. This was used as a test site for three (3) different in-pavement detection systems: SENSIT, Sensys, and CivicSmart. All three (3) are wireless sensors that detect the presence of a vehicle as it parks within a defined boundary. SENSIT uses magnetic and infrared technology while Sensys and CivicSmart use microwave radar. The presence accuracy of all 3 detection systems in the test were very high, ranging from approximately 97-99%. In this case, the detectors were used for individual space detection though can also be used for in/out counting as well. Observing the detectors in the field, it was noticed that the

SENSIT detector has a plastic covering that rises above ground level. In warmer climates such as Florida this is not a problem, but in Pennsylvania, this would not be practical with snow plowing operations. The other two detectors are installed just below flush with the pavement surface. It should be noted though that multiple CivicSmart detectors were observed with their protective coverings broken. With these just being installed in 2016, the durability of the product should therefore be questioned.

After the completion of these pilot studies, Florida received a federal grant which will be used to expand their truck parking management system. They have set a goal of providing TPMS at each rest area along all of their major interstate highways statewide. All of the expansion sites will utilize in-ground parking spot detection. The detector type can be selected by the Contractor but they specify that three should be located in each parking spot for redundancy and improved accuracy. The data collected by the system will be integrated into Florida's existing 511 website and app, as well as shared externally so that it can be utilized by various third-party apps currently in use by truckers.

In the pilot projects, FDOT noticed that arrival and departure of trucks mostly occurred during two (2) regular, concentrated peak times. Lots generally filled up by around 7:00 pm and emptied by around 6:00 am. Based on this, they decided to log parking data to develop a predictive algorithm that could be used to anticipate future parking availability. They anticipate that the predictive algorithm will not be activated for approximately one year to allow for baseline data accumulation, so as to capture seasonal trends in addition to the daily peaks. Once the algorithm is in use, this predictive data will be shared on their 511 system so that truckers can better plan their parking ahead of time.

California

FHWA also recommended speaking with the Freight Research Project Manager for the California Department of Transportation (Caltrans), and the Assistant Research Engineer at University of California-Berkeley's Transportation Sustainability Research Center (UC-Berkeley TSRC). The latter has extensively researched many facets of truck parking and published papers related to estimation and forecasting of truck parking, detection effectiveness, and surveys which gather data from the perspective of truck drivers.

Over the last few years, Caltrans has partnered with UC-Berkeley TSRC and private truck stops in a public/private/academic collaboration to aid truckers along I-5, the primary north-south freeway in the state. Their focus has been mostly on in/out counts as the cost of individual space detection at the large private lots would become prohibitive. A 2012 report³ helped determine focus areas for their project by analyzing average annual five-axle truck traffic along the length of I-5 in California. This data showed truck volumes were substantially higher in San Joaquin County than anywhere else in the state. This is

³ Martin, Elliot W. and Shaheen, Susan A. *Truck Parking and Traffic on I-5 in California: Analysis of a Clipboard Survey and Annual Average Daily Traffic Data*. University of California, Berkeley, Transportation Sustainability Research Center, November 2012.

due to it being a hub for logistics operations and connections to and from the ports in the San Francisco Bay Area.

Due to these high truck volumes in the area, the team has used the Logistics Terminals lot in Lathrop, just south of Stockton along I-5 as a test site for counting technologies. This is a secure, 24-hour staffed and video monitored drop and hook depot that can also provide overnight parking for almost 200 trucks.

Through the project, a website, American Truck Parking (www.americantruckparking.com) was developed which shows truck parking information across the United States. The website includes truck parking information at public rest areas, private truck stops, and truck fueling locations. The map-based site (as seen in **Figure 3**) allows a user to click on a location and find the total number of truck parking spaces available, as well as information on the following amenities:

- Communications (copy/fax machine)
- Entertainment (game room, TV viewing area)
- Fuel types
- Internet Availability
- Parking Attributes (hours, usage of reservations)
- Personal Convenience (convenience store, vending machines)
- Health and Hygiene (bathroom, showers, laundry)
- Shipping/Mailing Services
- Truck Services (CAT scales, tire service, truck wash)
- Restaurants
- Banking and Cash Services (ATM, check cashing)

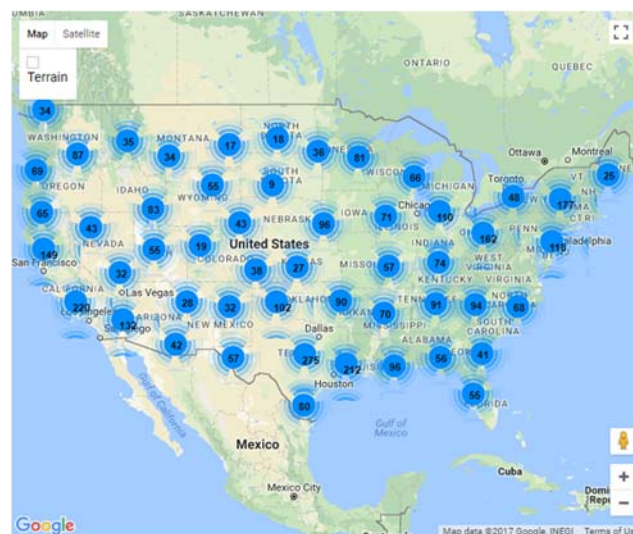


Figure 3: American Truck Parking website interface

The Logistics Terminal location shows the live truck parking availability on the website. The team hopes to share more live data as their capabilities increase.

A WebEx session was held on October 12, 2017 with the UC-Berkeley and Caltrans representatives and the PTC team where they shared an overview of their project and fielded questions from the PTC team. It was stated, when possible, an in/out detection system is likely the best method for the cost, relative to other methods. Unfortunately, depending on the geometric layout of truck parking facilities, this method is not always possible. When spot detection is required, Caltrans had success with in-ground sensors, though exposure to high temperatures caused damage to some of the sensors. They also had an unsuccessful attempt at video detection due to a lack of commitment and reliability from the vendor. It was noted that they piloted a reservation system at one location along I-5 but that it was rarely used and currently was dormant.

More recently the California team has been experimenting with RFID technology for in/out counting. A side-fire RFID signal is sent from an antenna on one side of an entrance/exit to a tag placed opposite to it. When a truck drives through, the signal is broken and a count is made. The relatively low cost of this technology would make this a very affordable way to provide a truck parking management system.

The Cal-Berkeley team is also analyzing predictive modeling of parking availability, utilizing a Fourier series, which is a way to represent a function as a sum of simple sine waves. As an example, count data from the four (4) previous Mondays, would be used to anticipate the truck parking availability on a particular current Monday. A curve of best fit would show the anticipated availability through the course of the day. They anticipate the predictive model would check itself against the actual current count and shift the predictive curve to match the current count whenever it deviated too far from the current availability.

Other States

Other MAASTO states were contacted to inquire about their individual approaches to the TPIMS project. Kansas DOT is acting as the project manager for the MAASTO project. The program manager for the Office of Freight and Rail in Kansas's Bureau of Transportation Planning provided information on their specific TPMS deployment along I-70 and I-35. They plan to use DMS which will update every five (5) minutes and show parking availability for the 2-3 upstream sites. This information will also be shown on their existing state traveler information website. Detection will be done with camera technology. At a test site, they noticed illumination problems were causing detection inconsistencies so they have added lighting improvements to the project for each site. He also noted that they plan to coordinate planning and education with the state police as part of the project rollout.

Minnesota is another member of the MAASTO TPIMS project. They had previously installed truck parking systems at six (6) locations along I-94 in collaboration with the University of Minnesota. For this pilot project, a 3D video approach to detection was used. Multiple camera views constructed a 3D image of a parking area, with each view performing redundancy checks to filter out artifacts arising from signal noise, camera optics, etc. As an example of the scale of camera deployment required, one 18 space rest area required four (4) cameras (each on their own pole) installed around the perimeter of the lot. This form of detection performed very well, with results no lower than 95% and often higher. The small

amount of errors that did occur were often just when a truck was pulling into or out of a space and the count corrected itself on subsequent detections. Counting was slightly less accurate during nighttime than daytime which could be corrected by ensuring lighting is appropriate at the site.

Despite the success of the camera detection pilot, Minnesota has chosen to use in-space magnetometer detection for the rollout of their TPIMS sites and will replace the pilot sites with this detection as well. The primary reasoning for this change was cost, as the installation of poles and cameras was expensive. They plan on using two (2) detectors per space at their rest areas and will install CCTV cameras for surveillance from their Traffic Management Center and for calibration checks.

They plan to use full-color DMS signs for notification, with the signs placed five (5) miles upstream of parking locations. They prefer the flexibility of DMS signs as opposed to the static signs with only digital number, as they can still post other messages when necessary. Minnesota DOT did note that, once the number of available spaces falls below a certain percentage threshold, the signs will just display “LOW” instead of the number. In addition to the signs, they’ll also take advantage of their existing 511 app and website to get the parking information out to drivers.

Ohio DOT, also part of the MAASTO TPIMS project, will be beginning truck parking detection at sites along I-70 and I-75. Their portion of the project was awarded as a design/build/maintain contract, with the contractor selecting the detection type and operating the system for three (3) years. One unique feature in Ohio is the integration which will occur with the City of Columbus, who won the recent USDOT Smart City competition. It is planned that the truck parking data will be fed into the Smart City app they are currently developing.

The Ohio Turnpike is currently developing plans for a reservable truck parking space program at their service plazas. They currently anticipate the program would be modeled after similar reservation systems at private lots, with no detection technology. Open spaces would instead be monitored by on-site staff. The information and reservation system would be provided on their website, phone app, and possibly at a network of kiosks. They hope that the program will be a revenue generator for the Turnpike Authority, while simultaneously promoting highway safety by better providing truck parking to their users.

The I-95 Corridor Coalition piloted truck parking systems at two (2) locations, one in Maryland and one in Virginia. Multiple technologies were considered and field-tested but ultimately, they went with in-ground space detection via a Sensys hybrid device which included both radar and magnetometer units inside a single casing. Camera detection was tested at the Maryland location but problems occurred with cameras overheating. The vendor recommended using wooden poles instead of aluminum to avoid overheating problems but it was decided to instead go with the in-ground detection. Notification was provided through a dedicated project website, as well as a telephone system with an automatic call-back feature, and a continuously-generated external data feed for third-party truck parking information distributors.

The Coordinator of the Freight, Mobility, Safety & Security division of the I-95 Corridor Coalition recommended allowing an open-source data feed as the trucking industry already has ample ways to broadcast this data, with existing apps and websites, as well as through dispatchers. She encouraged a component-based approach to developing a truck parking system, evaluating data collection, integration, and dissemination systems separately instead of purchasing an all-around package from a vendor. She also discouraged reservation systems due to lack of driver interest, the complications of running such a system, and the lack of potential for a true revenue stream from it.

Virginia DOT (VDOT) completed a truck parking study in 2015 which sought to determine the frequency of illicit truck parking throughout their interstate system and determine the areas of greatest need for expansion of truck parking services. The study documents the quantity of truck parking spaces available throughout the state and estimates the truck parking demand along each of their major corridors.

In addition to the I-95 Corridor Coalition pilot location at the Ladysmith Rest Area on I-95, VDOT is currently working on a much wider rollout of truck parking management, with Phase 1 of the project installing detection at 17 sites along I-66, I-81, and I-95. Phase 2 will include 14 more locations along I-64, I-85, and I-77. The proposed system will include in/out detectors as well as space detection via in-ground sensors. This redundancy should provide very accurate counts. When the two (2) counts diverge, an operator would be notified and could open control of a PTZ camera in order to determine the correct count and update accordingly. The data will be broadcast on dynamic parking signs and integrated into the existing 511 Virginia suite. The 511 suite will also broadcast private space availability from interested private sites. Public parking information will also be shared with the Northeast Association of State Transportation Officials (NASTO). **Table 4** shows the preliminary cost estimate for Virginia’s truck parking project. VDOT noted that savings of \$1,029,654 could be had by not including space detection and savings of \$1,771,249 could be had by not using dynamic parking signs. VDOT decided the benefits of the redundant detection and the dynamic signs was worth these costs and both are included in their project.

Table 4: VDOT Truck Parking Solution Cost Estimate

Corridor	Sites	Spaces	Total Estimate
I-66	3	20	\$384,188
I-81	11	190	\$1,498,688
<u>I-95</u>	<u>3</u>	<u>105</u>	<u>\$469,187</u>
Phase 1	17	315	\$2,352,063
I-64	6	76	\$794,375
I-85	5	81	\$681,313
<u>I-77</u>	<u>3</u>	<u>79</u>	<u>\$443,187</u>
Phase 2	14	236	\$1,918,875
TOTAL	31	551	\$4,220,937



Summary of Findings

The initial step for many transportation authorities exploring truck parking improvements is to study the current parking capacity along their system and compare that with truck volumes to determine the greatest areas of need in which to focus on. Current counts of truck parking availability should be collected as well in order to provide a metric to compare against once improvements are implemented.

Once the parking areas to install truck parking detection are selected, the data collection method and data collection technology should be determined. If possible, sensible piloting of multiple technologies is preferred so they can be evaluated in connection with any unique factors to the region, such as weather conditions and winter plowing efforts. If the truck parking areas are clearly separated with defined entrances and exits, an in/out collection method could be sufficient and cost effective. Space detection with cameras is the most accurate technology but the cost is currently quite expensive. If opting for individual space detection, in-pavement radar is currently the most effective choice, though this could change as video detection develops further and more competitors begin to offer it. Maintenance impacts associated with the use of in-pavement detection technologies should be fully vetted prior to deployment. **Table 5 and Table 6** compiles a summary of positives and negatives to consider when choosing a method and technology for data collection. Regardless of the types and methods of detection and notification are chosen, their potential integration with the Advanced Traffic Management System (ATMS) software will be vital, and should be considered in the requirements development phase of the project.

Table 5: Pros/Cons of In/Out Detection Technologies

In/Out Detection			
		Pros	Cons
In/Out Detection Approach		<ul style="list-style-type: none"> In/out detection is the most cost-effective solution due to minimal number of sensors required Won't be affected by plowing and paving operations Durability – no vehicle/plowing wear and tear 	<ul style="list-style-type: none"> Accuracy can be difficult to achieve at sites with complex ingress/egress layouts Detectors can be blocked by Trucks illicitly parking in front of the detector and inadvertently block the detection areas
Type of Detection		Pros	Cons
Above Ground Detection	Video Detection (++, \$)	<ul style="list-style-type: none"> Video Analytics is an improving technology Lowest cost 	<ul style="list-style-type: none"> Affected by visibility conditions Need full field of view for accurate classification
	Microwave Radar (+, \$\$)	<ul style="list-style-type: none"> Low Power, solar option 	<ul style="list-style-type: none"> Reflections and low speeds impact accuracy
In-Pavement Detection	Magnetometer (++, \$\$)	<ul style="list-style-type: none"> Wireless sensors and repeaters 	<ul style="list-style-type: none"> Some sensor models could be damaged by plowing operations Sensors would need to be replaced for paving operations
<p>Legend Relative Accuracy: Lower +, ++, +++ Higher Relative Cost: Lower \$, \$\$, \$\$\$, \$\$\$\$\$ Higher</p>			

Table 6: Pros/Cons of Per Space Detection Technologies

Occupancy Per Space Detection			
		Pros	Cons
Occupancy Per Space Detection Approach		<ul style="list-style-type: none"> • Occupancy Per Space Detection can be cost-effective for small lots • More accurate than in/out with respect to real-time space occupancy 	<ul style="list-style-type: none"> • Costs can increase drastically for large parking facilities • Does not keep track of trucks parked in non-striped spots • More expensive than in/out detection.
Type of Detection		Pros	Cons
Above Ground Detection	Video Detection (+++ , \$\$\$\$\$)	<ul style="list-style-type: none"> • Under good conditions, the most accurate detection • Won't be affected by plowing and paving operations 	<ul style="list-style-type: none"> • Most expensive per space solution • Accuracy can be affected by adverse weather or lighting conditions (e.g. glare, shadowing)
In-Pavement Detection	Magnetometer (+, \$)	<ul style="list-style-type: none"> • Most economical per-space technology 	<ul style="list-style-type: none"> • Some sensor models could be damaged by plowing and/or paving operations • Historically inaccurate in truck parking applications due to false calls of nearby trucks
	Magnetometer/ Radar or Infrared (++, \$\$\$)	<ul style="list-style-type: none"> • More accurate than magnetometer alone – dual tech. more accurately holds calls 	<ul style="list-style-type: none"> • Some sensor models could be damaged by plowing and/or paving operations
<p>Legend Relative Accuracy: Lower +, ++, +++ Higher Relative Cost: Lower \$, \$\$, \$\$\$, \$\$\$\$\$ Higher</p>			

The other major question in developing a TPMS is how to distribute the acquired data. Signs, both DMS and static signs with digital displays, are popular. Those using full DMS enjoy the flexibility it provides to sometimes display messages unrelated to truck parking. If the roadway already has a sufficient number of DMS, then a static sign with digital displays is likely preferable. Michigan DOT developed a sign that met all MUTCD standards and their design is now being used in many other states so the consistency would be beneficial to long-haul truckers who regularly travel through multiple states. Some cost savings can be had from avoiding signs altogether, but in multiple studies, drivers cited signage as their preferred way to receive parking information. Signs also provide an easy way to relay the messages without drivers having to become distracted by their phone or other in-cab information systems. States had varying policies on placement of signs, ranging from one (1) mile to 30 miles upstream of parking locations. Given the limited number of interchanges and truck parking facilities along the Turnpike, signs will likely be placed farther from parking locations.

If a transportation authority already has an existing traffic information website or app, such as PTC's TripTalk or PennDOT's 511, the truck parking information should certainly be integrated. Websites and apps can display more information than signage, which allows the display of amenities that would be of interest to a driver. Developing specific apps or websites for this information is not recommended. For drivers traveling through multiple states, checking different websites and downloading different apps for each state can become a burden. Also, there are already a sufficient number of third-party apps, as well as GPS navigation systems, which are distributing truck parking information to a wide network of drivers. It is recommended to provide an external data feed to these existing sources to improve the information they provide.

Given the relatively large gaps between interchanges and parking sites along the Turnpike, a predictive counting method could be ideal and should be considered. An algorithm could be developed based on accumulated parking data to determine expected trends based on time of day, day of the week, and seasonal factors. This predictive data could be easily integrated into existing apps and websites in a variety of ways. Using predictive data on signage would be more complicated without the ability to concisely convey that it is estimated and not a live count.

FHWA recommended contacting the Pennsylvania Motor Truck Association (PMTA) and the Owner-Operated Independent Drivers Association (OOIDA) to help get the word out to third-party developers and dispatchers about open source data. It would also be beneficial to include these organizations in external stakeholder meetings to help steer the development of the truck parking program as well.

Reservations are used at many private lots but rarely at public parking facilities. Based on discussions in the outreach for this project, it is not recommended for use on the Turnpike. Reservation-based systems include added logistical considerations and the chances of a true revenue stream from such a system are considered limited.

Looking towards the future, the trucking industry will potentially be one of the leaders in implementing connected vehicle and autonomous technologies. Use of DSRC to convey truck parking data directly to drivers (as in Michigan) could likely become more widespread as more trucks are outfitted with V2I (vehicle-to-infrastructure) capabilities. This would reduce or even eliminate the need for truck parking signage and further emphasizes the stance that transportation agencies do not need to develop their own standalone truck parking apps and websites.

6 User-Oriented Operational Description

Table 7 lists all of the stakeholders related to the TPMS project, along with their corresponding roles and responsibilities.

Table 7: Stakeholder Roles and Responsibilities

Stakeholder Group	Roles and Responsibilities
Pennsylvania Turnpike	System Owner. Responsible for developing the system requirements, procurement, deployment, operation and maintenance of the system.
FHWA	Awarded original Truck Parking Initiative funds to Pennsylvania Department of Transportation/Pennsylvania Turnpike Commission. Ensures that funding-related activities meet federal standards.
PennDOT	Will administer the federal funds for the project, and is a partner agency with a parallel interest in managing truck parking in Pennsylvania.
Industry Freight Organizations (PMTA, OOIDA)	Help to publicize the system, provide feedback from users, and collaborate on integrated solutions.
Pennsylvania State Police	Responsible for policing the truck parking facilities that will be managed by the TPMS.
Delaware Valley Regional Planning Commission (DVRPC)	Provide regional support and insight into industry interests.
Contractors	The contracted company may be required to collect, aggregate, and provide truck parking data to the PTC for dissemination.
Third party Website/App Developers	Access truck parking availability data collected by the TPMS and disseminate the information on websites, smartphone applications, and in-cab systems.
Truck Drivers (Independent, Contracted, and Company Truck Drivers)	Receive truck parking information from multiple platforms including roadside signs, websites, smartphone applications, dispatchers, and in-cab systems. With the information, they are able to make better decisions regarding their stopping points.

6.1 External Stakeholder Engagement

In order to better understand the needs of external stakeholders, an External Stakeholder ConOps meeting was held on January 16, 2018. Representatives from all of the stakeholder groups were invited and most attended the meeting. Those who could not attend were contacted separately to collect their input. The meeting gave participants a better understanding of the project and system as well as an opportunity to provide their input from their perspectives.

The following topics were discussed:

- Where and How parking information is planned to be collected

- The methods for information to be disseminated
- Placement of signage for displaying parking information
- Understanding how truckers would utilize the information available to them through different mediums (signs, apps, websites, etc.)
- Measurement and expectations for success of the project/system

Additionally, the PTC developed a survey that was distributed to each of the trucking companies that were part of the Turnpike’s Top 50 customers.

PTC Trucker Survey

In addition to the organizational outreach, a survey was also completed as part of this State of the Practice exercise. The survey was distributed to the Pennsylvania Motor Truck Association (PMTA) and the Owner-Operated Independent Drivers Association (OOIDA) as well as a list of the top trucking customers of the PTC. The survey was also posted on the Commercial page of the PTC website. Over 300 responses were compiled. The following figures show some of the results found in the survey.

Figure 4 shows that the most difficult section of the Turnpike to find parking is from the Lebanon-Lancaster interchange to the New Jersey State Line. This portion of the Turnpike system would be covered by the limits of the proposed TPMS project.

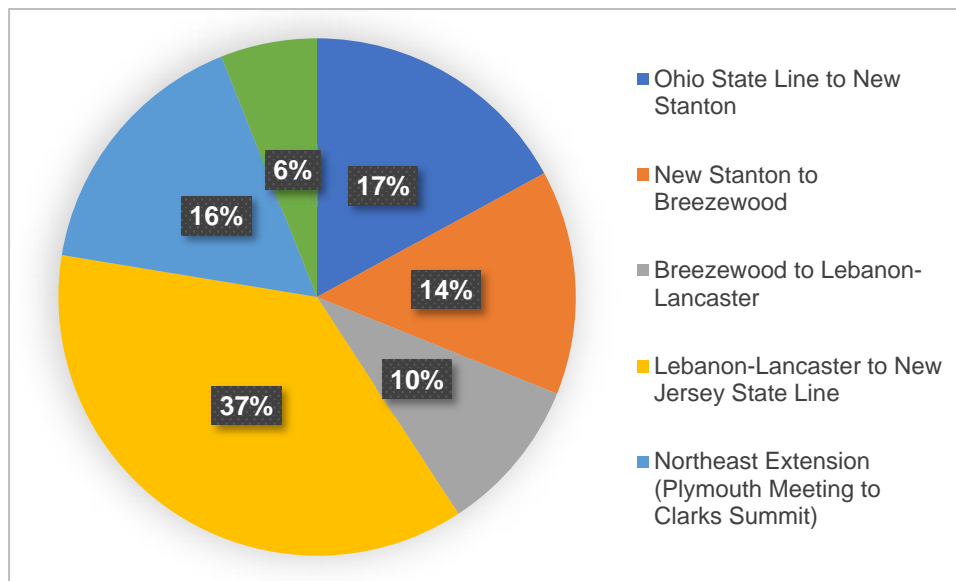


Figure 4: Most Difficult Areas on Turnpike to Find Parking

Table 8 shows how often drivers park in unauthorized or undesignated locations (such as ramps, road shoulders, etc.). While 39% of drivers say they do not park in illicit locations, the majority admit that they do at least a few times per month.

Table 8: Frequency of Unauthorized Parking

Important Factor	Percent of Responses
Never	39%
A few times per month	42%
A few times per week	18%
Daily	1%
Weather Conditions	3.6%

Table 9 shows the average length of time that drivers spend searching for parking. This chart shows that 35% of drivers regularly spend more than 30 minutes searching for parking.

Table 9: Length of Search for Parking

Important Factor	Percent of Responses
Less than 5 minutes	14%
5-15 minutes	22%
16-30 minutes	29%
31+ minutes	35%

Figure 5 shows how far in advance drivers normally begin planning their parking location. This shows that, although most drivers active parking search is less than 30 minutes, the majority of them begin planning their location more than an hour in advance, with almost a third of drivers beginning to plan more than 4 hours in advance.

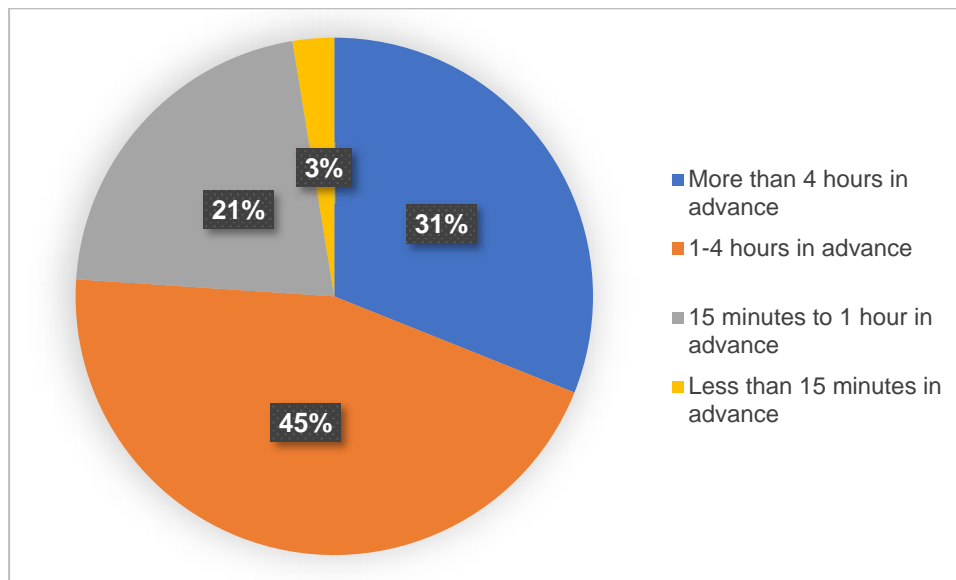


Figure 5: Advance Planning Time for Parking

7 Operational Needs

7.1 Goals and Objectives

A Goals, Objectives, Strategies and Tactics (GOST) Analysis meeting was held on May 5, 2017. Two of the primary results of this meeting were the identification of Goals and Objectives of internal stakeholders.

The goals and objectives for the TPMS project are to:

- Provide real-time, accurate, reliable truck parking information to all users and stakeholders both en route on roadway and in vehicle to encourage proper truck parking practices.
- Reduce and eliminate all truck parking on off-ramps, shoulders, pull offs, and in illicit areas of service plazas.
- Provide advance notice to truckers in regional sections. i.e. provide information for all parking opportunities upstream – regionally.
- Provide an effective parking management system while not eliminating any parking spaces for the sake of the system.
- Keep truckers on the Turnpike.
- Garner industry confidence in truck parking management systems.

7.2 User Needs

Through internal and external stakeholder meetings, the following list of operational needs were collected and must be addressed by the TPMS.

- Deploy a cost-effective solution with minimal operation/maintenance requirements.
- Deploy a system that is scalable.
- Maximize understanding and acceptance of the TPMS through a communications plan
- Collect data for performance measurement, operations analysis, and evaluation for future expansion.
- Collect and provide timely, reliable, and accurate parking availability information to efficiently locate parking.
- Deploy a system that provides flexibility in operation based on condition (e.g. weather or incident vs. normal conditions).
- Deploy a system that is capable of using Connected Vehicle technologies.
- Deploy a system that is capable of utilizing historical data to provide predictive parking information.
- Provide truck parking information through multiple dissemination methods.
- Provide information in a way that meets federal safety guidelines for commercial drivers.
- Improve personal safety and security for commercial drivers.
- Reduce fatigue-related truck crashes in deployed corridors.
- Reduce illicit parking in unmarked areas (Ramps, shoulders, wide areas, etc.)

7.3 Performance Measures

To help the PTC determine the effectiveness of the TPMS, a set of performance measures will be implemented and analyzed. The following are preliminary measures to track system performance.

- Collect data for before/after analysis of trucking incidents in and around service plazas where the TPMS will be deployed.
- Collect data to analyze truck parking capacity utilization before and after the TPMS deployment.
- Conduct interviews with motor carrier operators and dispatchers to:
 - determine their level of usage and reliance on the system.
 - gain perspective on the system's ability to assist in meeting hours of service requirements.
- Conduct surveys of motor carrier organizations to evaluate the usefulness of the system (survey to be conducted with the assistance of PMTA and OOIDA).
- Document illegally parked trucks at rest areas both before and after deployment.
- Assess the security benefits of site oversight by interviewing the Pennsylvania State Police.
- Document any system down time to measure system reliability.
- Document system accuracy – e.g. When a manual calibration check is performed, keep record of the current system count versus the manual count.

8 System Overview

The TPMS project concept involves four primary components:

- Selection of procurement method.
- Collection of truck parking information.
- Aggregation and processing of data.
- Dissemination of truck parking availability information.

The PTC TPMS system will consist of data collection equipment installed at PTC-owned service plazas only. There will be no data collected at privately-owned facilities or public facilities owned by PennDOT.

8.1 Procurement Method

It is anticipated that the TPMS will be procured utilizing the traditional PTC Request for Proposal (RFP) deployment with public operation and maintenance. An RFP will be developed to include system performance and functional requirements paired with a high level conceptual design. The RFP will be advertised for proposals from interested parties. It is planned that the contract will include a defined maintenance period. When the maintenance period concludes, the maintenance responsibilities will be turned over to the PTC.

If the project finds success, and a decision is made to expand the system, the procurement method may be altered depending on the scope of the expansion. For example, if privately-owned parking facilities are to be added to the system, a public-private model would need to be considered. Traditional Design/Bid/Build procurement could be utilized for PTC facility only expansion.

The Commission intends to utilize its standard professional services selection process. The process consists of:

- **Tier 1 – Technical Evaluation Team:** A Technical Evaluation Team (TET) of subject matter experts are assembled to review all proposals. Cost proposals are submitted separately from the technical proposal and are not opened until all technical proposals are reviewed and rated. Typically, the proposed costs are considered in the rating of proposals, however rating decisions are not made solely on costs. The evaluation criteria are identified in the RFP, including cost, and are listed in order of importance. The proposals are assigned a rating of Highly Recommended, Recommended, and Not Recommended. A narrative evaluation is developed for each proposal by the TET to present to the Professional Services Procurement Committee (PSPC) in Tier 2 review.
- **Tier 2 – Professional Services Procurement Committee (PSPC):** The TET submits the narrative evaluations to a group of senior PTC officials known as the PSPC and must present and justify their ratings. The PSPC makes an independent determination as to the rating for each proposal. Proposals (firms) will not be ranked, but rather compile an alphabetical list of Highly Recommended firms to be submitted to the Commission for the Tier 3 review.
- **Tier 3 – Commission Review:** The Commissioners shall receive and consider all TET and PSPC materials related to the “Highly Recommended” proposals (firms) as well as any additional selection factors, when applicable. The Commissioners shall vote to affirm the selection of the most “Highly Recommended” proposal and authorize Commission staff to enter into contract negotiations with the selected firm(s).

8.2 Data Collection

Truck parking information must be collected at each of the participating parking facilities. There are many technologies that have been utilized countrywide with varying levels of success; often dependent on areas of the country in which they were deployed. In Pennsylvania’s case, a technology must be selected that performs well in all weather conditions, including rain, snow, ice, wind, fog, and cold temperatures.

The data collection methods to be considered for this project include:

In/Out Counting Technologies:

- In-Ground Magnetometer
- Video Detection (Traditional or Infrared)
- Microwave Radar

Space Occupancy Counting Technologies:

- Magnetometer
- Magnetometer and Microwave Radar
- Magnetometer and Infrared
- Video Detection

The selection of technology will be determined based on system performance requirements likely dictated by individual site characteristics at each selected truck parking area.

Due to the widespread shortage of parking capacity across the system, unauthorized truck parking is a common occurrence in all PTC service plazas. In cases like the Valley Forge Service Plaza where only seven (7) lined spaces are available, the number of trucks parked nightly in unauthorized locations has been observed to approximately triple the available space count (20 additional trucks parked illicitly). This poses a problem for the TPMS system in determining the truck parking baseline capacity used for each plaza to identify when availability is “low” or “full”. Utilization of unauthorized or illegal parking areas will likely continue without presence of consistent parking enforcement. The PTC has identified some actions that are anticipated to alleviate some of the expected impacts of this issue. First, the PTC will identify current unauthorized areas that would be safe to convert to lined parking spaces. Second, the PTC will coordinate the PSP to identify the unauthorized areas that are the most dangerous for truck parking to develop a system rollout enforcement plans. Lastly, along with the industry outreach and education on how the system will operate, emphasis will be made on warning of an increased focus on enforcement of unlawful and unsafe truck parking activities – resulting in increased safety and more reliable truck parking information provided by the TPMS.

Data Validation

As no data collection technology is 100% accurate, there is potential for parking availability counts to become inaccurate over time. Therefore, it is important that a data validation mechanism be implemented to ensure the information provided to the public is accurate. To combat this issue, CCTV cameras will be deployed at each service plaza to allow for periodic data verification. A manual count will be completed by PTC staff 1 or 2 times daily to ensure that current counts are accurate.

8.3 Data Aggregation and Processing

The data aggregation and processing of truck parking data will be achieved through one of the two following ways:

1. The RFP procurement method. The awarded company will construct the system and install a software system to receive the raw truck parking data, process and distribute the digested data automatically through all methods of dissemination. It will be required that the selected system shall be integrated with the PTC’s next generation Advanced Transportation Management System (ATMS) to place messages on roadside message signs. It is anticipated that the ATMS will be in mid-deployment when the TPMS is being constructed and implemented.

2. ATMS processed data. An ATMS module for truck parking will be implemented by the PTC to collect, process and manage the parking data. The ATMS will process the information automatically and disseminate to all outlets. This method may not be feasible due to the potential of overlapping deployment schedules of the ATMS and TPMS.

8.4 Data Dissemination

There are many ways in which the truck parking information can be communicated to truck drivers and industry stakeholders. It is important that the information distributed to the public is provided and available to drivers at key times and locations. Discussions held within the external stakeholder meeting indicated that general parking facility availability information is beneficial in advance of a parking opportunity, and specific space availability information is important within 2-10 miles in advance of parking facility entrances.

Message Signs

The PTC intends to utilize roadside message signs to provide truck parking information - Static/Digital Hybrid signs or Full Color/Full Matrix DMS. Each type has its strengths and weaknesses – DMS provide flexibility in use (e.g. incident response) while Static/Digital hybrid signs provide a more cost-effective solution albeit for a dedicated use. These roadside signs, regardless of type, will display truck parking information utilizing a layout that is MUTCD compliant.

Figure 6, on the following page, shows a preliminary roadside message sign layout for the TPMS project. Signs are positioned at least 5 miles in advance of each service plaza. In instances where an interchange is within that 5 mile advance range, the sign is placed slightly further upstream to provide an opportunity for the truck driver to exit if the sign communicates that parking conditions are limited downstream.

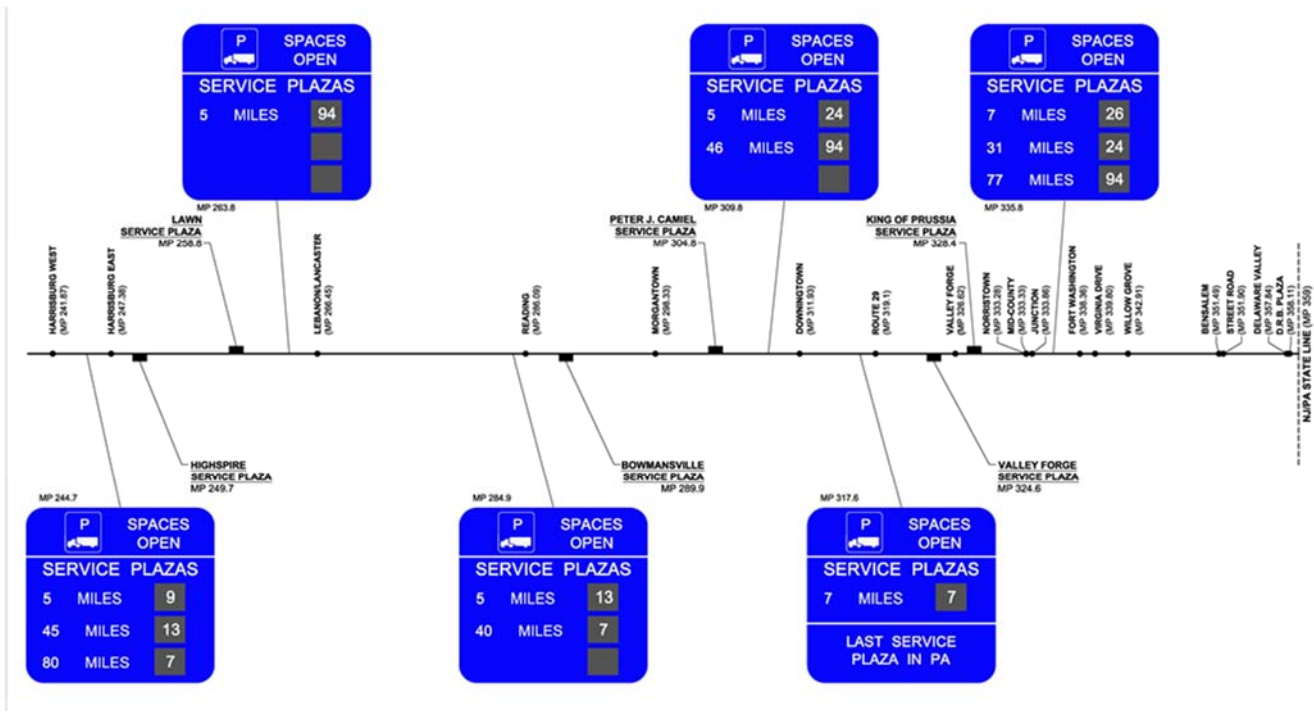


Figure 6: Preliminary Roadside Message Sign Layout

Web Based Platforms

In addition to providing truck parking information on the roadside, information will be disseminated to web-based platforms such as traveler information websites or smartphone applications that will enable drivers and dispatchers to make informed route planning decisions before the trip and en route.

The parking information will be provided on the PTC’s website, through the 511/Trip website, and TripTalk application. Additionally, a public facing data feed will be made available for any third-party application developer (e.g. Trucker Path, ParkMyTruck, etc.) or adjacent agencies or external organizations (PennDOT, MAASTO, Trucking Companies, etc.) to utilize the data. It is intended that the truck parking data feed will utilize the same format as the MAASTO TPIMS to allow sharing of data.

Unlike roadside signage, web-based platforms allow greater flexibility in how and how much parking information is displayed. Historical data could be accessed, live space by space occupancy, predictive information, and even likelihood of a spot becoming available. However, web-based platforms typically can only be accessed by dispatchers, drivers with Wi-Fi or cellular data service, and vehicles with integrated in-cab systems. Any of these applications must be FMCSA “one-touch” compliant or hands-free voice interactive, as many drivers are not allowed by company policy and law to access their mobile devices while on the road.

Additional Dissemination Methods

The PTC does not plan to take steps beyond providing the data to external parties, however the information can be provided externally through In-Cab Systems, GPS Systems, and Traveler Information Kiosks.

8.5 Locations

The TPMS will be implemented through this initial deployment at six (6) PTC service plazas: Highspire, Lawn, Bowmansville, Peter J. Camiel, Valley Forge, and King of Prussia. The Figures below provide aerial imagery (Google Earth) of each of the selected deployment locations.

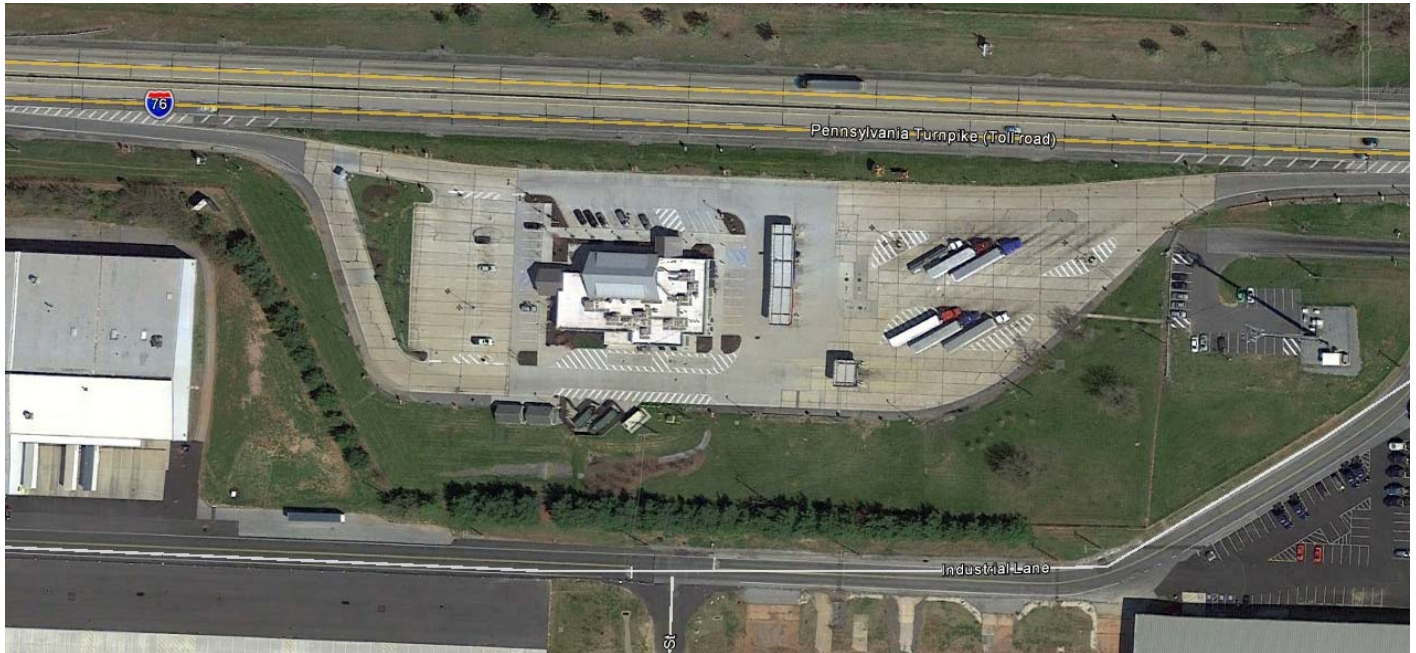


Figure 7: Highspire Service Plaza – Milepost 249.7 Eastbound

Highspire Service Plaza is located 2.4 miles east of the Harrisburg East Interchange and 36.7 miles west of the Lebanon/Lancaster Interchange. This facility has a total truck parking capacity of 9 spaces.

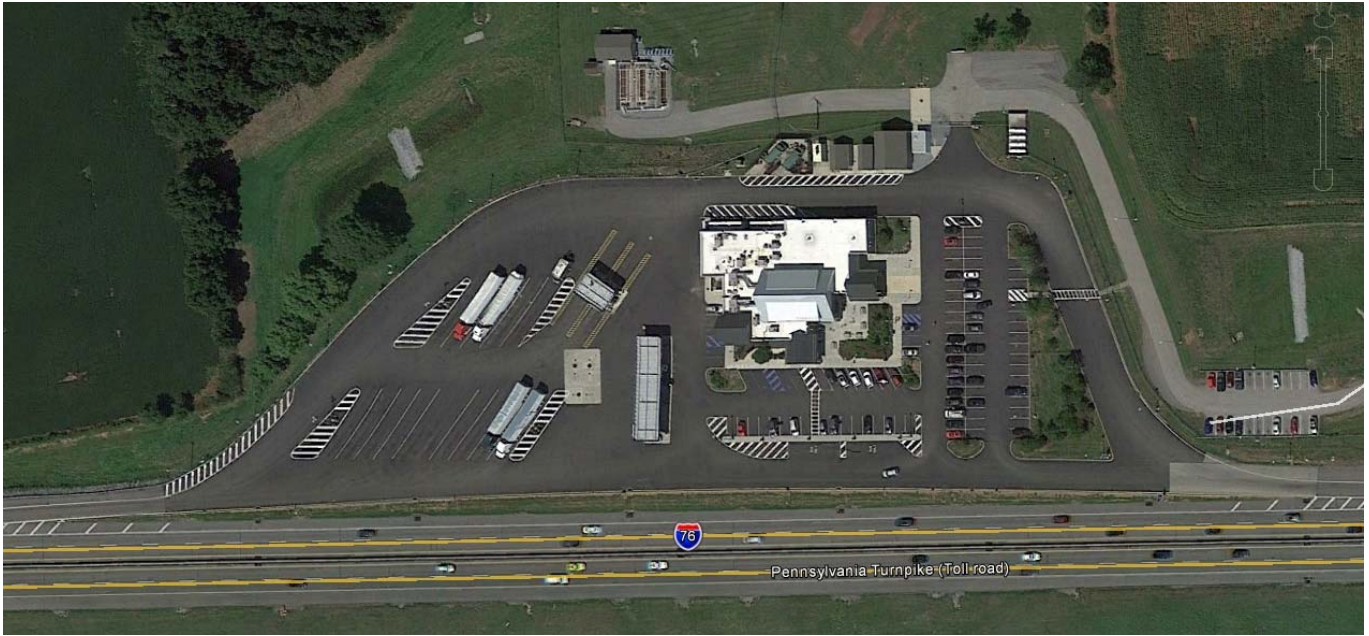


Figure 8: Lawn Service Plaza - Milepost 258.8 Westbound

Lawn Service Plaza is located 11.5 miles east of the Harrisburg East Interchange and 7.65 miles west of the Lebanon/Lancaster Interchange. This facility has a total truck parking capacity of 14 spaces. It is planned that this Service Plaza will expand its truck parking capacity by approximately 80 additional spaces prior to or concurrently with the TPMS deployment.



Figure 9: Bowmansville Service Plaza - Milepost 289.9 Eastbound

Bowmansville Service Plaza is located 3.9 miles east from the Reading Interchange and 6.4 miles west of the Morgantown Interchange. This parking facility has a truck parking capacity of 13 spaces.



Figure 10: Peter J. Camiel Service Plaza - Milepost 304.8 Westbound

Peter J. Camiel Service Plaza is located 8.4 miles east from the Morgantown Interchange and 7.1 miles west from the Downingtown Interchange. This parking facility has a truck parking capacity of 24 spaces.

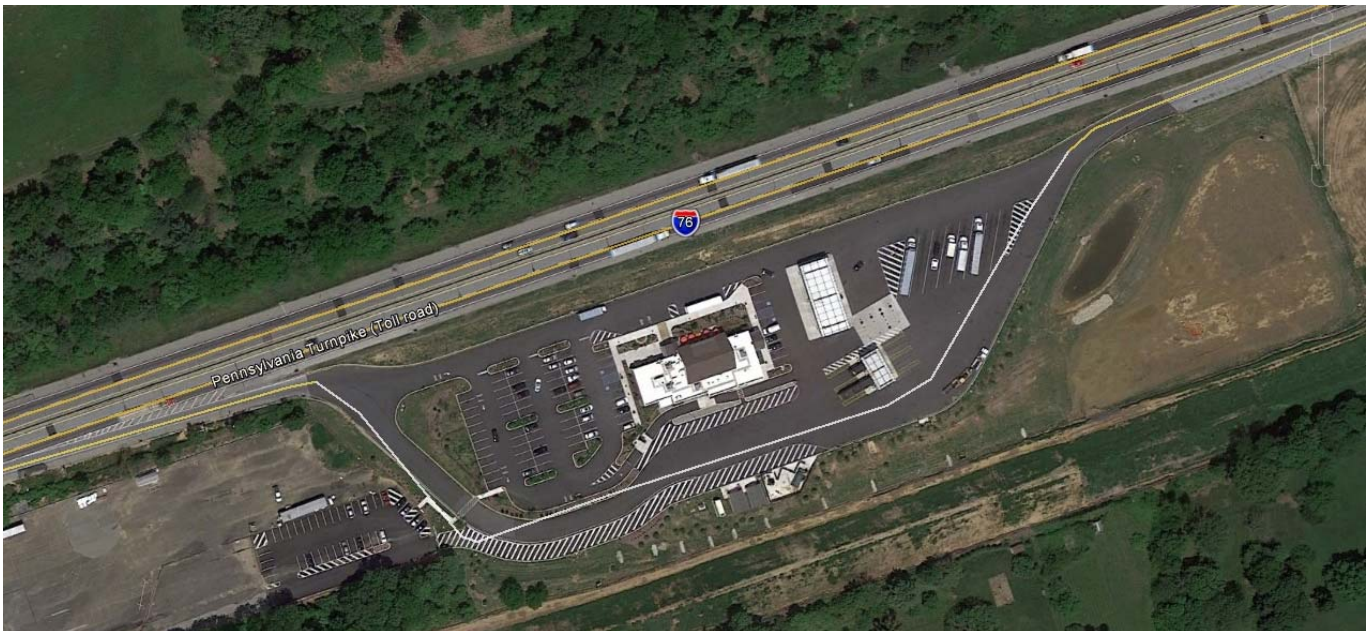


Figure 11: Valley Forge Service Plaza - Milepost 324.6 Eastbound

Valley Forge Service Plaza is located 12.7 miles east of the Downingtown Interchange and 2 miles west of the Valley Forge Interchange. This parking facility has a truck parking capacity of 7 spaces.

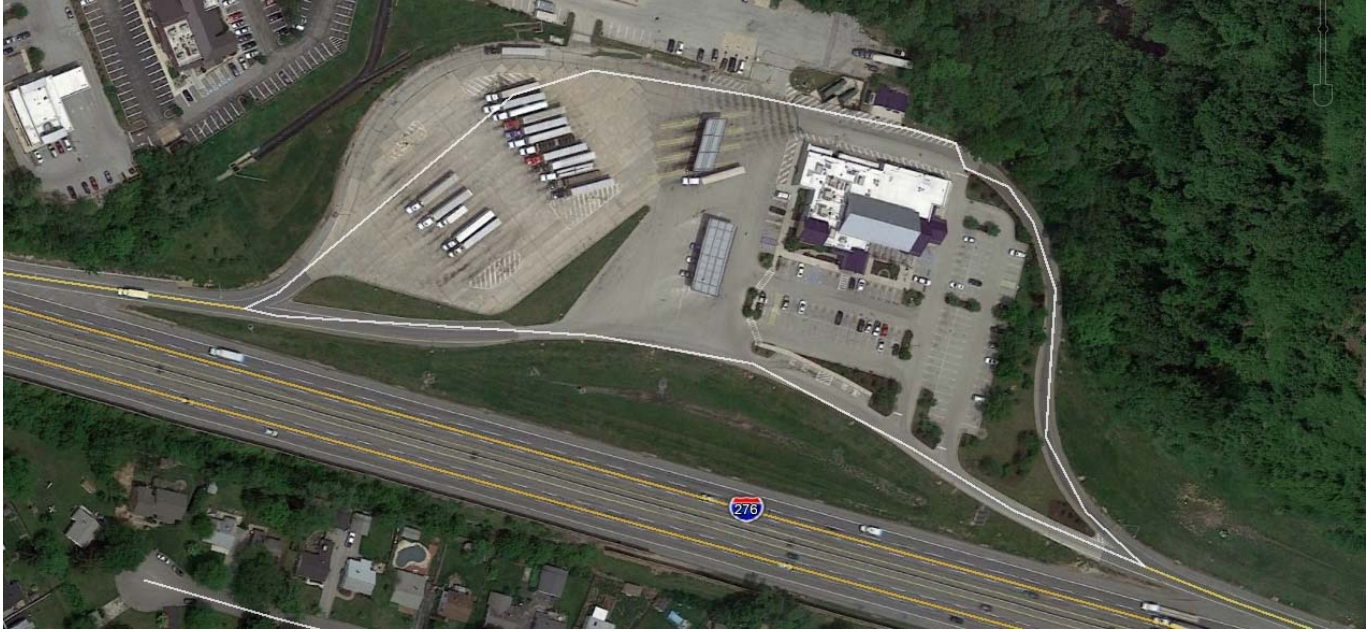


Figure 12: King of Prussia Service Plaza - Milepost 328.4 Westbound

King of Prussia Service Plaza is located 1.8 miles east of the Valley Forge Interchange and 4.8 miles west of the Norristown Interchange. This parking facility has a truck parking capacity of 26 spaces.

The overall truck parking capacity for the project is summarized in the table below.

Table 10: Truck Parking Capacity Summary

Service Plaza	Travel Direction	Parking Capacity
Highspire Service Plaza	Eastbound	9
Lawn Service Plaza	Westbound	14 *
Bowmansville Service Plaza	Eastbound	13
Peter J. Camiel Service Plaza	Westbound	24
Valley Forge Service Plaza	Eastbound	7
King of Prussia Service Plaza	Westbound	26
Total	3 EB / 3 WB	93
*80 additional spaces are proposed at Lawn Service Plaza		

8.6 System Architecture

Figure 13 below depicts the high-level system diagram. The left side of the diagram shows all of the proposed and future inputs to the system, while the right side displays the outputs.

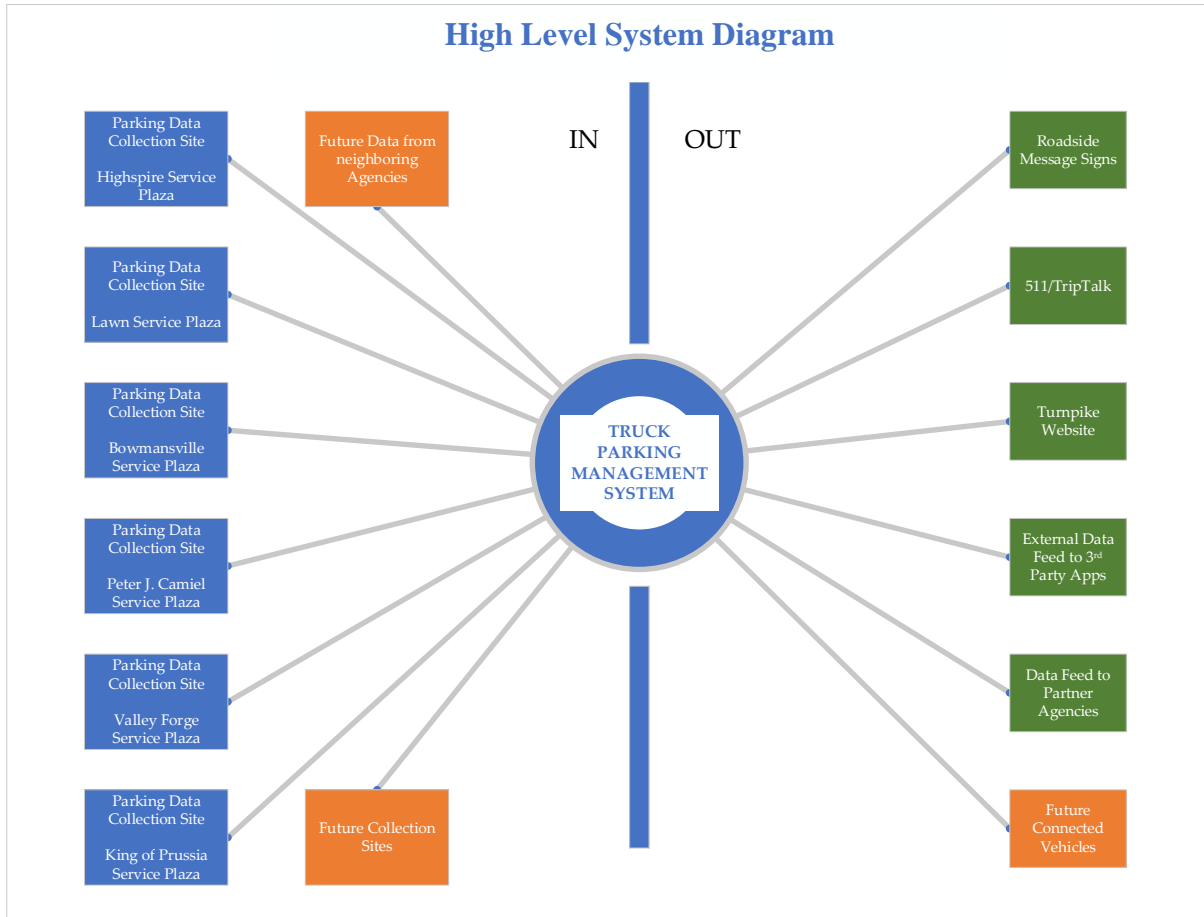


Figure 13: TPMS High Level System Diagram

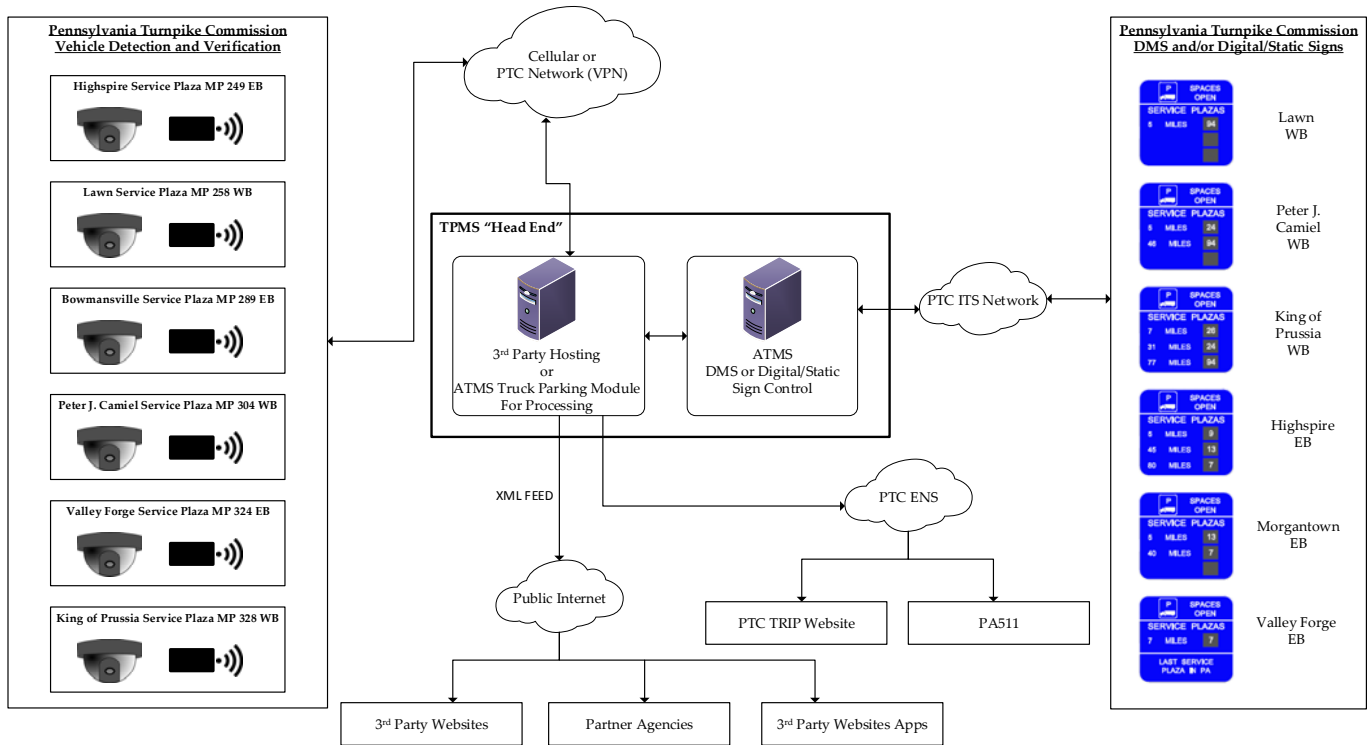


Figure 14: TPMS System Architecture

9 Operational and Maintenance Elements

Based on the current project approach, the operation and maintenance will be the responsibility of the PTC after the system is installed, tested, and turned over. The following system elements will be under the PTC charge:

- Service Plaza Detection Equipment
- Service Plaza Communication Equipment
- Head-End Communication Equipment
- Communication medium (Cellular, PTC network)
- Truck Parking Message Signs (DMS)
- ATMS or Dedicated Data Aggregation and Processing software/hardware
- Traveler Information Website (PTC Website, 511/Trip)
- External Data Feed
- Data Validation Equipment (CCTV)
- Connected Vehicle Equipment (Future - DSRC)

Currently, the PTC has dedicated staff and maintenance contracts in place to maintain all of the elements listed above, however the addition of these elements will certainly add to the workload of those parties.

Coordination with the Service Plaza lessee (currently HMS Host and 7-Eleven) will be required to schedule planned and unplanned maintenance activities.

10 Operational Scenarios

Operational scenarios are hypothetical scenarios intended to illustrate the operational flows for users and operators of the TPIMS. The operational scenarios discussed include a daily system use for three types of drivers and one operation and maintenance scenario.

10.1 Daily Use Scenarios

Scenario 1: Independent Owner/Operator

This scenario involves an independent owner/operator, who is allowed to interface with technologies while moving within the FMCSA guidelines, planning their trip and later changing plans while traveling eastbound on the Pennsylvania Turnpike. The following narrative of this scenario is from the viewpoint of the truck driver.

Approaching Highspire Service Plaza (MP 249.7), the truck driver sees a dynamic truck parking sign indicating limited parking at the Service Plaza. However, the sign indicates that ample parking spaces are available 40 miles ahead at the Bowmansville Service Plaza (MP 289.9).

The driver activates the FMCSA-compliant third-party app on the smartphone, which is mounted on the driver's dashboard. The driver verbally requests upcoming facilities with available parking. The app automatically locates the truck's position and travel direction, and provides visual and audible alerts regarding the next available facilities with available parking:

1 spaces open. 12 miles ahead. Highspire Service Plaza.

10 spaces open. 40 miles ahead. Bowmansville Service Plaza.

The driver listens for updates to the parking availability on the smartphone. After traveling for approximately seven miles, an update comes from the smartphone app:

- 4 spaces open. 5 miles ahead. Highspire Service Plaza.
- 10 spaces open. 33 miles ahead. Bowmansville Service Plaza.

The driver requests service information about Highspire Service Plaza. The smartphone app provides audible and visual information regarding the truck stop.

Scenario 2: Contracted Driver

This scenario involves a contracted truck driver, who is allowed to interface with technologies while moving within the FMCSA guidelines, planning their trip and later changing plans while traveling westbound on the Pennsylvania Turnpike. The following narrative of this scenario is from the viewpoint of the truck driver.

Approaching a rest area, the truck driver sees an advance truck parking information sign indicating that parking opportunities at the upcoming King of Prussia Service Plaza (MP 328.4) are limited. However, the sign indicates that ample parking spaces are available at Peter J. Camiel (MP 304.8).

The driver contacts their dispatcher or driver manager and requests upcoming facilities with available parking. Based on the truck's position, the dispatcher is able to find information regarding the next available facilities with available parking:

- 1 spaces open. 12 miles ahead. King of Prussia Service Plaza.
- 15 spaces open. 36 miles ahead. Peter J. Camiel Service Plaza.

The driver avoids the delay of pulling into King of Prussia, and continues on the mainline to Peter J. Camiel.

The driver requests service information about Peter J. Camiel. The dispatcher or driver manager lists the services available, including the price of food, fuel prices, etc.

Scenario 3: Fleet Driver

This scenario involves a fleet truck driver, who is not allowed to interface with technologies while moving. The driver plans their trip and later needs to change plans while traveling westbound on the Pennsylvania Turnpike. The following narrative of this scenario is from the viewpoint of the truck driver.

Approaching a rest area, the truck driver sees an advance truck parking information sign indicating that parking opportunities at the upcoming King of Prussia Service Plaza (MP 328.4) are limited. However, the sign indicates that ample parking spaces are available at Peter J. Camiel (MP 304.8). If desired, the driver may pull off at an earlier exit to contact their dispatcher/driver manager or use their smartphone to research amenities and exact truck stop locations at the desired exit.

The driver avoids the delay of pulling off at King of Prussia, and continues on the mainline to Peter J. Camiel. While the driver may not know the exact amenities or the specific location of the truck parking, they are able to narrow down their decision and avoid further delay.

10.2 Operation and Maintenance Scenario

The operation and maintenance scenario is intended to provide insight from the daily operations and maintenance perspective.

Scenario 1: Device Failure

This scenario involves the failure of a counting device which is causing inaccurate parking data at a service plaza.

The TOC receives an alert from the TPMS that there is a device failure. Standard operating procedure is followed and a ticket is filed for Network Control to identify the issue. It is determined that the issue is not the communication device, but a sensor failure.

The operator follows standard operating procedures and turns off the parking availability displays for that service plaza.

The sensor is replaced, calibrated, tested, and operation is restored to normal. The ticket is closed and the parking availability display is turned back on to normal operation.

11 Summary of Impacts/Outcomes

Table 11 show the impacts and outcomes that each stakeholder should expect to experience as a result of the TPMS deployment.

Table 11: Stakeholder Impacts/Outcomes

Stakeholder Group	Outcomes
Pennsylvania Turnpike	Positive economic and safety impacts on the Turnpike system. Better distribution of truck parking will reduce overcrowding in unsafe locations. Opportunity to expand the TPMS to other regions of the Turnpike and PennDOT, and collaborate with other neighboring agencies or states to expand from the initial TPMS deployment.
FHWA	Positive economic and safety impacts on Interstate 76 and 276 as a result of enhanced freight parking management.
PennDOT	Positive economic and safety impacts on adjacent corridors a result of enhanced freight parking management on the Turnpike. Opportunity to expand the system to PennDOT facilities or integrate with other truck parking initiatives.
Industry Freight Organizations (PMTA, OOIDA)	More satisfied users and enhanced truck parking data for research purposes.
Pennsylvania State Police	Positive safety impacts as a result of enhance freight parking management.
Delaware Valley Regional Planning Commission (DVRPC)	More satisfied users and enhanced truck parking data for research and planning purposes. Opportunities to coordinate the expansion to/integration with other regional trucking partners.
Contractors	Financial benefit for providing a service to the PTC.
Third party Website/App Developers	Financial benefit for enhanced truck parking information to users.
Truck Drivers (Independent, Contracted, and Company Truck Drivers)	Easier to assist truck drivers in finding safe, reliable parking options.

12 Conclusions, Recommendations, and Next Steps

Within this Concept of Operations document, all of the potential technology and counting method options considered for implementation within this TPMS system deployment have been identified. While these options have been effective in various deployments across the country, it is evident that the PTC service plazas present unique challenges that would limit the effectiveness of some of the identified options. Some of the major challenges facing the system include:

- Both trucks and passenger vehicles utilize the service plazas – the detection technology used will be required to classify vehicles to identify trucks



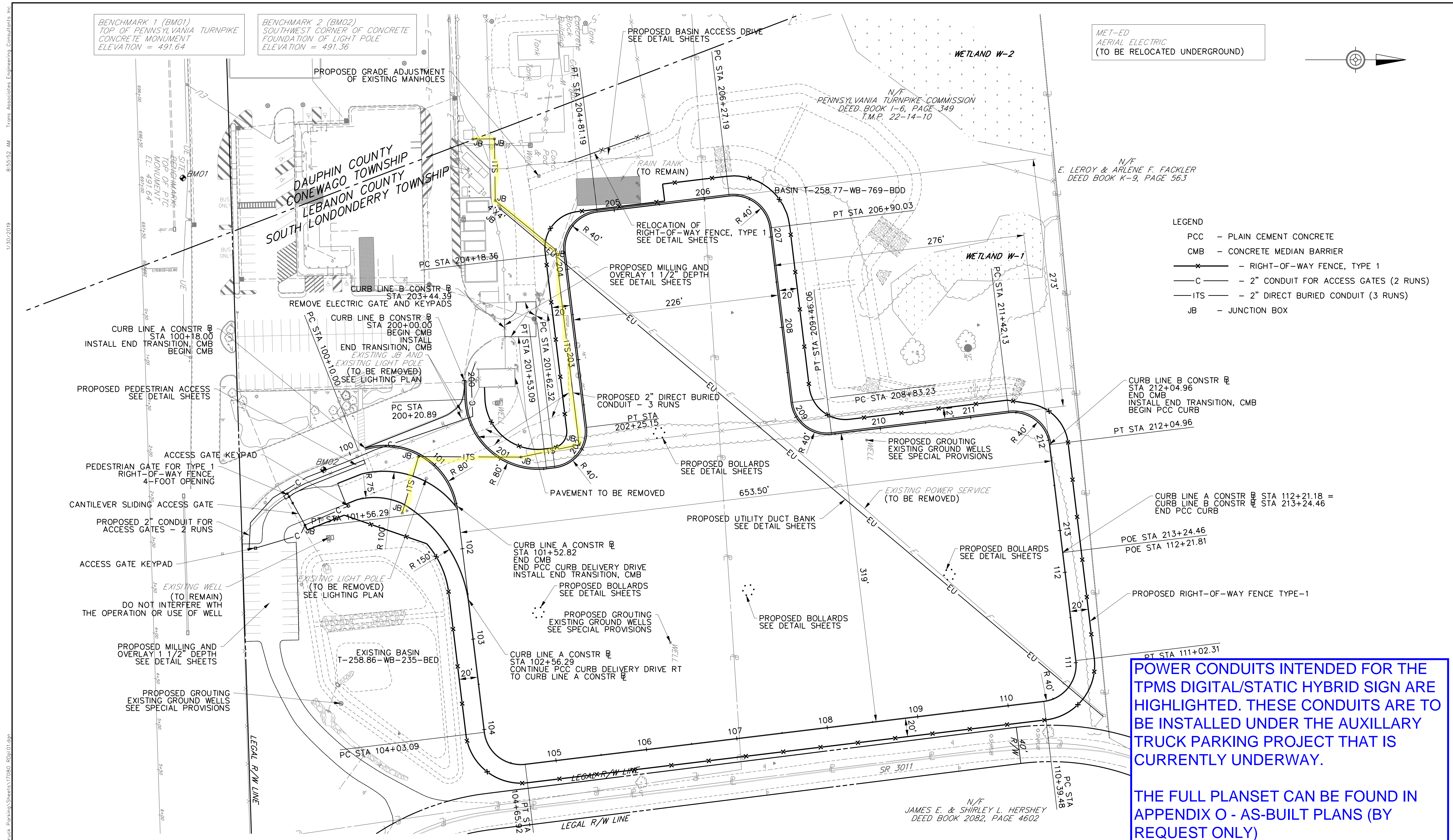
- Many wide carriageways throughout the service plazas provide attractive locations for unauthorized parking – provides for opportunities for illegal parking and contributes to variability and unpredictability in where trucks park
- All Service Plazas have fueling stations, food, restrooms, and other amenities – short term parking is common
- Service Plaza geometry does not allow trucks to circle back around to open parking spaces – truck driver uncertainty in whether open spaces are available downstream in the plaza contribute to parking in “first available” unauthorized areas
- The demand for parking spaces is much higher than the supply – unauthorized parking is likely to continue. The system needs to be flexible in its operations/configuration to compensate for some level of accepted unauthorized parking

These challenges have led to the following recommendations to be considered when developing the system requirements for this deployment:

- **In/out counting is recommended**
 - Due to the variability in where trucks will park within the service plazas in excess of the available spaces (e.g. unstriped unauthorized locations, double parking, etc.) Occupancy (Per space) detection is not suitable for these plazas.
 - An In/Out counting approach allows for flexibility in configuring the “in system” capacity of the lot. In other words, the total available parking defined within the software for each plaza can be adjusted to include both the total number of striped spaces and some number of unauthorized spaces to compensate for an expected number of unauthorized parking and/or short-term parking instances within the plaza. Therefore, fine tuning can be accomplished through the software.
- **In-Ground magnetometer or video detection is recommended**
 - Due to the geometry of the service plaza entrances and exits, namely truck being able to ignore signage and travel where passenger vehicles are directed (and vice versa), detection technologies that are able to classify vehicles are required. Both magnetometers and video detection have this functionality.
 - Video detection is likely the more expensive solution due to the need to deliver a power supply and a mode of communication (i.e. trenching and conduit required) to the camera equipment. Magnetometers and their repeaters use an integral battery that can last over 5 years, eliminating a need for power infrastructure to be delivered to the detection location.

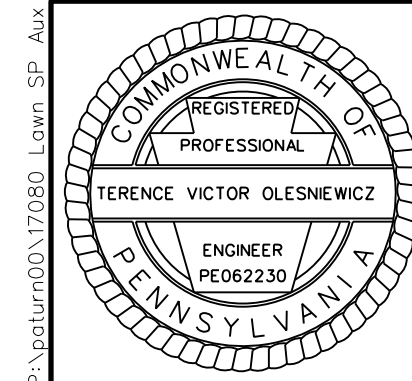
The recommendations above are intended to only be applied to the target service plazas identified within this initial project. Any expansions to the system, albeit additional service plazas, private facilities, or other public facilities (e.g. PennDOT rest areas), should be analyzed independently for best fit counting method and technology.

The PTC will utilize this concept of operations document to drive the development of system requirements. The system requirements will include detailed information to specify the functional processes of the overall system and system components as well as ancillary maintenance and technical environment needs.



POWER CONDUITS INTENDED FOR THE TPMS DIGITAL/STATIC HYBRID SIGN ARE HIGHLIGHTED. THESE CONDUITS ARE TO BE INSTALLED UNDER THE AUXILLARY TRUCK PARKING PROJECT THAT IS CURRENTLY UNDERWAY.

THE FULL PLANSET CAN BE FOUND IN APPENDIX O - AS-BUILT PLANS (BY REQUEST ONLY)



PREPARED BY:
Trans ASSOCIATES
 Small Firm Client Experience, Big Firm Capabilities
 PREPARED FOR:
 THE PENNSYLVANIA TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.

WBS NO.
T258.77R001-3-02
 NETWORK NUMBER: 7006420
 FILE NAME: RDPL01.DGN
 DRAWING TYPE: 1A
 STRUCTURE NUMBER:
 SCALE: 0 50 100
 SCALE IN FEET

**LAWN SERVICE PLAZA
 AUXILIARY TRUCK PARKING
 MILEPOST 258.77**

SITE PLAN

DISTRICT: 3 COUNTY: DAUPHIN AND LEBANON
 TOWNSHIP / BOROUGH: CONEWAGO TOWNSHIP AND SOUTH LONDONDERRY TOWNSHIP

DRAWING: 1 OF 1
 SHEET: 27 OF 69

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APPENDIX P
SPECIAL PROVISIONS

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A. GENERAL

This request for proposals (RFP) provides interested Proposers with sufficient information to enable them to prepare and submit proposals for consideration by the Pennsylvania Turnpike Commission (Commission) to satisfy a need for the design, furnishing and installation of a completely functional Truck Parking Management System (TPMS) which includes a SaaS (Software as a Service) component, digital/static hybrid message sign(s), truck parking detection equipment, Closed Circuit Television Systems (CCTV) and power and communications connections for all devices.

Work items included, but are not limited to:

- Design, procure, install, integrate, test, and train for the operation of truck parking detection, CCTV cameras, and related power and communication connections and equipment at the PTC service plazas listed in the table below. The successful proposer shall be responsible to maintain the TPMS as necessary to ensure that all contract performance requirements are maintained for the entirety of the contract performance period, beginning upon system acceptance. The PTC reserves the right to increase or decrease the number of PTC service plazas/truck parking facilities included in the project as funding allows.

PTC Mainline Service Plazas	PTC Northeast Extension Service Plazas
Sideling Hill Service Plaza (MP T172.3 EB/WB) Blue Mountain (MP T202.5 WB) Highspire Service Plaza (MP T249.7 EB) Lawn Service Plaza (MP T258.8 WB) Bowmansville Service Plaza (MP T289.9 EB) Peter J. Camiel Service Plaza (MP T304.8WB) Valley Forge Service Plaza (MP T324.6 EB) King of Prussia Service Plaza (MP T328.4 WB)	Allentown Service Plaza (MP A55.9 NB/SB) Hickory Run Service Plaza (MP A86.1 NB/SB)

- Design, procure, install, configure, integrate, test, train and maintain for the operation of a SaaS Truck Parking Management software to be monitored and operated by PTC personnel from the existing Traffic Operations Center (TOC) located in Highspire, PA. The TPMS shall interface with the PTC’s Advanced Transportation Management System (ATMS) to facilitate control of existing Dynamic Message Signs (DMS) and digital/static hybrid message signs installed under this contract. The successful proposer shall be responsible for all costs associated with proving the SaaS and provide support for the cloud hosted TPMS and ATMS interface throughout deployment and for the entirety of the contract performance period, beginning upon system acceptance.
- System Component Summary and Operation/Maintenance Responsibilities – The table below outlines the operation and maintenance responsibilities for the different subsystem components of the project.

System Component	Operation/Maintenance Responsibility
Detection Subsystem	Contractor – Through Deployment and Performance Period
CCTV Subsystem	Contractor – Through Deployment; PTC – After Acceptance
TPMS (SaaS) and ATMS Interface	Contractor – Through Deployment and Performance Period
Digital/Static Hybrid Message Sign	Contractor – Through Deployment; PTC – After Acceptance

- Environmental Clearances. Environmental clearance for a Categorical Exclusion 1a (CE 1a) evaluation was obtained for all PTC service plazas and all activities within the site footprint defined as the Commission Right-of-Way that envelopes each subject service plaza. If the proposer requests that required system infrastructure be moved outside of the footprint, the Proposer will be responsible for conducting the environmental studies, preparing and obtaining environmental clearance for a re-evaluation of the approved CE 1a and obtaining all necessary permits prior to proceeding to construction. The CE 1a evaluation for this project is provided as part of the RFP documents.

B. PROTECTION AND COORDINATION OF UTILITIES

Ascertain and locate any utility lines in the vicinity of the entire project and take all precautions to fully protect the (utility) facility and service. Prior to performing any work in the vicinity of any underground or overhead line or service, advise the facility owner at least 72 hours in advance of initiating work and provide all measures for protection in accordance with the National Electric Safety Code, the Occupational Safety and Health Administration's Regulations and as deemed necessary by the facility owner with the Representative's concurrence. Coordinate protection and relocation of utilities with the facility owner.

Attention is directed to the Provisions of Act 287 of 1974 and subsequent amendments, which specify the responsibilities in regard to public health and safety during excavation and demolition operations in areas of underground utilities. Contact the One Call System at 1-800-242-1776 for all facilities prior to performing underground work.

Immediately report to the facility owner, including the Department of Transportation, any break, leak or other damage to the lines or protective coatings made or discovered during the work and immediately alert the occupants of the premises and the employees of any emergency created or discovered.

Perform all work required for the location, replacement, adjustment or reconstruction of underground utilities in accordance with the Commission's Publication 408, Section 105.06.

Cooperate with all facility owners in the protection, placement, relocation, adjustment, or reconstruction of their structures and facilities during construction. Contact all facility owner representatives at least 15 working days prior to starting construction, and all affected utilities at least 3 weeks in advance of any required facility movements or as identified in the following description, in order to schedule and coordinate operations.

This work is incidental to the project.

C. COORDINATION OF WORK

In accordance with Section 105.07, as directed by the Representative and as follows:

Contractors working on either the same or adjacent projects are to cooperate with each other as part of their own scope of work and as directed. Without in any way limiting the foregoing requirement, cooperate and coordinate to the extent necessary to satisfactorily conclude all work essential for the operation of the Turnpike. Include all considerations, financial and otherwise, resulting from this requirement herein to interface, coordinate, and cooperate with other Proposer's working the same or other areas, as well as with the Commission and its authorized representative.

Arrange the work and place and dispose of the materials being used so as not to interfere with the operations of the other Proposer's within the limits of, or adjacent to the project.

If any part of the work depends on proper execution or results upon the work of any other Proposer, within 2 working days of the start of the work, inspect the work of the other Proposer's and report in writing to the Commission any apparent discrepancies, interferences, defects, or delays in such work that render it unsuitable for such proper execution and results. Failure to so inspect and report will constitute an acceptance of the other Proposer's work as fit and proper to receive this work, except as to defects which may develop in the other Proposer's work after the execution of the work hereunder.

If any Proposer does not complete the various portions of the work in general harmony, and another Proposer is caused damage or injury by the failure to so act in harmony, the Proposer damaged or injured is to settle with the Proposer causing the damage or injury by agreement or arbitrate such claim or disputes. The Commission, however, is not liable to any Proposer for any increased costs or damages resulting from the defective work, interference, final construction decisions, failure to coordinate and cooperate, or delays of other Proposer's.

During the course of this project, the following contracts will be under construction or in design:

- Lawn Truck Parking Expansion (Under Construction)
- Highspire Truck Parking Expansion (In Design)

If a lane or shoulder closure is to be set within 2 miles of these projects, the maintenance and protection of traffic signing must be coordinated with the Commission Representative and the above contractors.

Provide a minimum of 1-week advance notice to the Commission Representative for any anticipated lane or shoulder closures.

D. PROJECT SCHEDULE

The Proposer shall supply, within their proposal, a Project Schedule depicting at a minimum the following project milestones:

- Notice to Proceed
- System Block Diagrams
- List of Equipment/Submittals
- Begin Procurement
- Preliminary Engineering Design
- Final Engineering Design
- Engineering Design Approval
- End Procurement
- Field Construction
- Training

- Standalone Testing
- System Acceptance Testing
- Submission of Final As-Built Drawings
- Final System Acceptance by Commission
- Performance Period Begin
- Turnover
- Performance Period End

Complete all design, construction, and final system acceptance within 16 months (480 days) of the date of Notice to Proceed (Effective Date). The Performance Period shall begin the next business day following final system acceptance and commence 36 months from the date of Notice to Proceed.

E. MEASUREMENT AND PAYMENT SCHEDULE

Item 9900-0300 Turnover

- 50% on Acceptance of the Turnover Plan
- 50% on successful completion of Turnover Plan

Item 9900-0400 Software Licensing – Shall be paid in accordance with the software license agreement.

Item 9900-0401 Software Configuration and Integration

- 30% on Installation and Configuration of the software in the Hosted Environment
- 30% on Completion of all Stand Alone Testing
- 40% upon System Acceptance

Item 9900-0402 Performance Period

- Monthly – Paid for each completed calendar month of the Performance Period (Operational Support Period). The amount paid for each month will correspond to the monthly cost identified in the cost submittal (i.e. Year 2 monthly rate for a month in Year 2, Year 3 rate for a month in Year 3).
- The initial and/or last partial month shall be pro-rated for the days of the month completed within the Performance Period.

Item 9900-0403 Training

- 75% at the completion of the Training Sessions
- 25% at System Acceptance

Items 9900-0404 through 9900-0413 – Shall be paid individually for each item:

- 30% on construction completion of CCTV, Detection Equipment, and Digital/Static Hybrid Message Sign
- 30% on completion of the System Acceptance Test
- 30% upon System Acceptance and As-Built Acceptance
- 10% upon punch list completion

F. DOCUMENTATION FOR EQUIPMENT SUPPLIED BY THE CONTRACTOR

This Special Provision applies to all new installations being provided under this contract. It is only applicable to the equipment supplied by the Contractor and is not applicable for the equipment supplied by the Commission.

Initial equipment submittals are required by the Contractor to demonstrate that the equipment they will supply for the project has the capability to meet the functional objectives and specifications required by these Special Provisions. The level of effort required for the submittal material could vary depending on the complexity of the equipment and the degree to which the proposed equipment is off-the-shelf or custom in nature.

Furnish a complete list of equipment and material within 30 calendar days after Notice to Proceed. Include the name, manufacturer, part number and material specifications as applicable.

Provide descriptive material (manuals, cut-sheets, drawings, brochures, etc.), for each type of equipment and apparatus proposed for this project to demonstrate that the intended equipment or integration of intended equipment shall meet the functional objectives and specifications of the system. Include in these documents sufficient technical data for complete evaluation of the proposed system by the Representative. Provide original manuals or brochures or copies equal to originals.

Provide all user manuals and maintenance manuals for third party equipment supplied by the Contractor.

Provide the following project documentation (as applicable) for all equipment supplied by the Contractor.

1. Equipment Manuals.
2. Shop Drawings.
3. Control Cabinet and Service Panel Drawings. Provide drawings, which show all terminals, terminations and connections within each equipment cabinet. At each terminal illustrate the terminal designation for the other end of the wire or cable. Cross-reference connections that go to equipment harnesses or connectors to the nomenclature used in that equipment's manual.

Tailor drawings to each individual cabinet.

Submit all drawings to be attached in cabinets to the Representative for approval at least 30 calendar days prior to the on-site standalone testing. Supply marked up copies of all cabinet drawings to the Representative at the time of cabinet installation. Enclose drawings in a clear, plastic, waterproof enclosure.

4. Installation Summary. Compile and furnish as-built installation summaries within 14 days of start of the 60-day operational test for each field installation. This summary shall include the following information:
 - a. Equipment inventory including quantities of all equipment supplied under this contract, model number, manufacturer, and distributors for all equipment.

- b. Cable lists specifying cable, wire pair and connector and pin assignments for all signal, power and ground leads.
- c. Composite drawing of the system.
- d. As-built plans

The Representative has the right to stop the 60-day operational test if the installation summaries are not submitted within 14 days of the start of the test.

- 5. System Operations and Maintenance Manuals. Include a description and step-by-step procedures for all routine operating events. Include equipment preventive maintenance procedures and equipment fine-tuning and adjustment procedures.
- 6. NTCIP Compliance. Where applicable, provide third-party certification that the delivered field devices, control software and controller/firmware are National Transportation Communications for ITS Protocol (NTCIP) compliant as per the latest approved standards. See additional requirements in other sections.
- 7. Communications Protocol Manual. Submit detailed information as to which specific NTCIP standards (from the latest approved version), if any, applicable conformance groups, applicable data objects and associated range values shall be provided to meet the functional requirements as specified.
- 8. Testing Documentation – Submit a document compiling all of the completed testing documentations including sign off sheets.

Supplying the information required by this Special Provision is incidental to the project.

G. MAINTENANCE AND PROTECTION OF TRAFFIC DURING CONSTRUCTION

Perform maintenance and protection of traffic in accordance with the Commission’s PTS-900 through PTS-980 Standards, and Section 901 of the Commissions Specifications. The Proposer is responsible for all required lane and shoulder closures. The Proposer is required to coordinate all closure activities with the Commission’s project manager and must provide a minimum of ten (10) working days’ notice for the lane closure. Refer to **Appendix S - PTC Holiday Restrictions** for work day restrictions.

The Proposer shall meet with the Commission and agree upon the Maintenance and Protection of Traffic for all project locations. Access the Commission’s web site at https://www.paturnpike.com/business/engineering_standards.aspx for the latest PTS standards.

H. EROSION AND SEDIMENTATION CONTROL DURING CONSTRUCTION

Description - Provide, install and maintain erosion control measures as indicated in Section 865, and as directed by the Commission. Perform all construction in a manner that controls pollution and soil erosion and adhere to the following:

- Apply water to access roads, haul roads, and other work areas to keep dust within tolerable limits. Ensure that water used for sprinkling is completely additive free and approved by the Commission. Use no material other than water, as specified herein, for dust control.
- Locate equipment repair, maintenance and staging areas so that chemicals, fuels, lubricants, etc., will not discharge into streams, drainage features, watercourses, or wetlands.

Construction - During the construction operations, take the following erosion and sediment control measures as specified herein and/or shown in the standard drawings.

1. Reduce to the greatest extent practicable the area and duration of exposure of readily erodible soils.
2. Retard the rate of runoff and trap sediment by utilizing inlet protection, silt fence/sock barriers, rock filter outlets and dewatering basins.
3. Direct all pump discharges resulting from dewatering operations to a suitable sediment trap.
4. Protect the soils by seeding, temporary vegetation and/or mulching.
5. Complete and protect segments of work as rapidly as is consistent with construction schedules.
6. Isolate any active flow present at the time of ditch regrading by sand bagging, pumping or other suitable means.
7. Stabilize all ditches within twenty (20) days.

If work is suspended for any appreciable length of time, implement temporary measures to control erosion. Temporary measures may include, but are not limited to diverting surface water from disturbed areas, sloping the top of fills in the upstream direction, diversions, mulching, and seeding. Soils or topsoil maintained in small stockpiles or in trucks for a short duration may be protected against erosion by covering with polyethylene or other plastic or rubber sheeting.

Upon permanent stabilization of all areas disturbed by construction, remove sediment from all control devices and remove all silt fence barriers from the site. Unless otherwise approved by the Commission, dispose of all erosion and sediment control devices off site.

I. GENERAL DESIGN AND CONSTRUCTION PROJECT REQUIREMENTS

Description - This section describes the general requirements that the Proposer must meet in the design, furnishing and installation of a completely functional Truck Parking Management System as described in the RFP and Special Provisions. Items not specifically covered in these Special Provisions shall be governed by the applicable sections of the Commission’s Standard Drawings as well as the Commonwealth of Pennsylvania - Department of Transportation Specifications (Publication 408/2016). Standard drawings include, but not limited to:

PENNSYLVANIA TURNPIKE COMMISSION STANDARD DRAWINGS

PA Turnpike Commission – Maintenance and Protection of Traffic Standards – 1/2019, Change 1

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION STANDARD DRAWINGS

RC-81M HIGHWAY LIGHTING JUNCTION BOXES – LIGHT DUTY, JUNE 1, 2010
RC-82M HIGHWAY LIGHTING JUNCTION BOXES – HEAVY DUTY, JUNE 1, 2010
ITS-1201 ITS DEVICES – GENERAL, MARCH 1, 2013
ITS-1210 CLOSED CIRCUIT TELEVISION CAMERA, MARCH 1, 2013
ITS-1230 DYNAMIC MESSAGE SIGNS (SHEETS 1 – 3, 8), MARCH 1, 2013
TC-8702A POST-MOUNTED SIGNS, TYPE A (SHEET 8), JUNE 13, 2013

1. Design and Construction

Design and construct equipment such that performance will not be impaired after it has been subjected to shock and vibration caused by installation, transportation, maintenance handling, and normal use.

Install surge and lightning protection for all electrical and communication cables that are leaving or entering a cabinet. Provide resettable surge and lightning protection devices that can be subjected to multiple surges.

During construction work at any of the Commission’s network facilities, protect all equipment using dust-proof covers. Do not remove the dust-proof protection until after the work is completed and the work area cleaned.

- a. Electrical
 - i. Design Life – Design all components in their normal circuit applications to operate continuously for at least 10 years.
 - ii. Power Requirements – Provide equipment that meets the performance requirements at the specified power input level plus or minus 5%.
 - iii. Primary Input Power Interruption – Provide equipment such that in the event of a power failure, proper operation will commence immediately after restoration of power without creating false information or malfunction.

- iv. High Frequency Interference and Line Voltage Transients – Protect the equipment power supply circuitry against high frequency electrical interference and line voltage transients.
- v. Wire Size – Procure all wiring of such size to meet the requirements of the National Electric Code.
- vi. Wire Identification – Identify all wiring connected to terminal strips by the use of insulated preprinted sleeving slipped over the wire before final attachment.
- vii. Wire Dressing – Procure wires cut to proper length before assembly. Do not double back wires to take up slack. Lace wires neatly into cables with nylon lacing or plastic straps. Secure cables with suitable clamps. Provide identification tags for all cables.
- viii. Cable Termination – Terminate all cables, as required, using appropriate termination panels, with built-in surge protection and test access ports.
- ix. Protection – Provide equipment containing readily accessible, manually replaceable circuit protection devices such as fuses, for equipment and power source protection.
- x. Fail Safe – Provide and install equipment such that failure of individual equipment does not cause failure of the subsystem or system.
- xi. Static, Lightning and Surge Protection – Fully protect each piece of equipment from damage due to static electricity accumulation or discharge during unpacking, normal handling, and installation. Provide static electricity protection by case construction and by the use of protective devices on wires connected to the equipment. Use material and type of finish, which will not permit the accumulation of static electric charge. Protect all electrical and communication cables entering or leaving the equipment cabinets and which might be subject to damage, with bleeder resistors, current limiting resistors, Zener diodes, MOVs, or other suitable means of limiting momentary current surges. Provide in-line, re-settable surge protection to avoid damage from lightning induced surges or other power line transients for all cables entering and leaving all cabinets. Provide transient suppression devices meeting the requirements of NEMA TS-2 specifications. Surge protection is incidental to the cost of equipment. Include surge protection details in the shop drawings for approval by the Representative.

Coordinate with the equipment and surge protection device manufacturer to determine in-line voltage requirements.

b. Mechanical

- i. Modular Design - Design equipment in a modular fashion such that major portions may be readily replaced in the field.

- ii. Keying – Mechanically key modules of unlike functions to prevent insertion into the wrong socket or connector.
- iii. Identification – Clearly identify all modules and assemblies with name, model number, serial number and any other pertinent information required to facilitate equipment maintenance.

2. Maintenance Provisions

Procure equipment designed for ease of maintenance. Make all component parts readily accessible for inspection and maintenance. Provide test points utilizing test jacks or equivalent to enable testing and troubleshooting with the equipment operating.

3. Physical Environment Design Requirements

Provide equipment meeting all of its specified requirements during and after exposure to any combination of the specified environmental and power line conditions.

Temperature Range: -30 degrees C to +74 degrees C, unless otherwise specified for each piece of equipment or subsystem.

Relative Humidity: Not to exceed 95% non-condensing.

4. Personnel Safety

Procure equipment with provisions for personnel safety designed in. Design to prevent reversed assembly or installation of connectors, fasteners, etc., where possible malfunction or personnel hazards might occur. Properly ground in accordance with the requirements of the National Electric Code, all external conductive material on the equipment. Provide electrical equipment having provisions to limit ground fault current and leakage current to levels below that prescribed by Underwriters Laboratories, Inc.

5. Design Documentation

All official correspondence, including all submissions shall be transmitted via the PTC's Project Collaboration System – Kahua. Training shall be provided by the PTC immediately following contract award.

6. Design Submission Requirements

Submit within 45 calendar days following Notice-to-Proceed (NTP), system level block diagrams which demonstrate the feasibility of the system as well as the interconnection of all equipment. Include in the block diagrams, the electrical and mechanical details and the interconnection details showing equipment part numbers, cable type, connectors, etc. Use separate sheets for field, central and complete system configurations. Include block diagrams for every major functional area.

Furnish an updated (from proposal) a complete list of equipment and material within 60 calendar days after NTP. Include the name, manufacturer, part number and material specifications as applicable.

Submit for final approval the Engineering Design, as detailed in the RFP. The Selected Proposer must receive approval of the Engineering Design within 6 months from the NTP, and is responsible to provide all documents to the Commission allowing the Commission to provide review comments. Design documentation consists of all plans, drawings, design calculations and text required to define the configuration of the system including both hardware and software documentation.

The plan sets shall be developed using Commission standards and shall include, but not be limited to, the following sheets and sheet sets:

- Title Sheet
- Index Sheet
- General Notes
- Tabulation of Quantities
- Utility Information
- Construction Notes
- System Block Diagram
- Construction Details and Schematics
- Site Plan Sheets
- Maintenance and Protection of Traffic Plans
- Erosion and Sedimentation Control Plans
- Type A Sign Elevation Plan and Details
- CCTV Pole and Foundation Plans and Details (including details for mounting to existing poles or buildings)

60% preliminary plans, 100% final plans, and all supporting calculations shall be submitted and reviewed for approval by the Commission. All design elements shall be reflected in the plans and package.

Submit supporting calculations (e.g. wire size and over-current protection calculations, guide rail, conduit fill, etc.) and detailed testing procedures. Testing procedures shall be mapped in a traceability matrix to tie together procedures to system requirements.

Upon submittal of design and/or construction documentation via Kahua, the Commission and/or its Representatives, shall be allowed a maximum of 15 business days to provide review comments to the Selected Proposer.

Design Plans and supporting calculations must be “ACCEPTED” in the Commission’s project collaboration system prior to the commencement of any physical work. Upon ACCEPTANCE of portions of the Proposer’s Final Design Plan package (e.g. CCTV subsystem, or detection subsystem), Proposers may commence construction on those portions only.

7. CADD Requirements

All drawings including ITS construction plans, details, structure plans, typical sections, shop drawings, schematics, etc. to be provided under this contract shall be accomplished and developed using computer-aided design and drafting (CADD) software and procedures conforming to the following criteria.

All CADD data shall be supplied in the DWG/DGN electronic digital format. No translations shall be accepted. The Proposer shall ensure that all digital files and data (e.g., model files, reference files and resource files) are compatible with the Commission's primary CADD system and adhere to the standards and requirements specified herein. The term "compatible" means that data can be accessed directly by the target CADD system without translation, preprocessing, or post processing of the electronic digital data files. It is the responsibility of the Selected Proposer to ensure this level of compatibility.

CADD drawings shall be prepared in accordance with the Pennsylvania Turnpike Commission CADD Standards Manual. All other CADD Standards not covered by the Commission's CADD Standards Manual must be in accordance with PennDOT Highway Plans Presentation Manual, Publication 14M (Design Manual Part 3), March 2015 Edition – Change No. 1. Standard drawing size shall be ANSI D (34" x 22") and the PTC CADD Standard file naming conventions for model and sheet files shall be used.

The Proposer shall submit a written request for approval of any deviations from the Commission's established CADD standard. No deviations from the Commission's established CADD standard shall be permitted unless prior written approval of such deviation has been received from the Commission.

A copy of all CADD data and files developed under this contract shall be delivered to the Commission as part of the final submission.

J. MATERIALS, EQUIPMENT, AND SYSTEM COMPONENT SPECIFICATIONS

1. General Equipment Requirements

- a. General
 - i. Procure all equipment in a manner to minimize the number of manufacturers.
 - ii. Procure all material and equipment, which meet the latest applicable standards of National Electrical Manufacturers Association (NEMA), Electronics Industries Association (EIA), National Electric Code (NEC) Underwriters Laboratory (UL), Publication 408, and these Special Provisions.
 - iii. Procure the equipment from a manufacturer or manufacturers who have been successfully engaged in the manufacture of such equipment for a period of at least five years.

iv. Submit certification(s) from the various manufacturer(s) of equipment supplied under this contract that they will carry in factory stock, for at least 10 years, all necessary parts and stock items to keep the equipment operational.

b. Parts and Material

In the selection of parts and materials, fulfillment of the requirements of these Special Provisions is of prime consideration. Design equipment to utilize the latest available techniques and utilize the minimum number of different parts, subassemblies, circuits, cards and/or modules, to maximize standardization and commonality.

c. Electrical Components

Use electrical components that are generally industry standard items available from several manufacturers. Comply with the latest industry standard practices, specifications and tests, or approved alternatives for all the components, being furnished under this contract to assure reliable operation of all the equipment.

d. Mechanical Components

i. Hardware

Provide stainless steel external screws, nuts and lock washers. Do not use self-tapping screws. For internal screws, nuts and lock washers, use corrosion resistant material or material suitably plated to resist corrosion. Use material in accordance with the highest industry practices.

ii. Material

Provide parts made of corrosion resistant material, such as plastic, stainless steel, aluminum, or brass; or parts treated to resist corrosion, such as cadmium plating or galvanizing.

iii. Component Mounting and Identification

Identify operating circuit components mounted on circuit boards by either identifying characters, which are legible and permanently printed on the circuit boards, and by the use of complete assembly drawings showing all components with values or by JEDEC numbers. Reference the identifying characters to their respective components in the schematic diagram and in the parts list.

2. Control Software

Provide a TPMS software that meets all system requirements as defined in **Appendix Q - System Requirements**. Integrate the software with the Commission's ATMS for the ATMS to control existing DMS based upon information provided by the TPMS software. The Proposer will coordinate with the Commission and ATMS vendor (IBI Group) to connect and integrate the systems together while meeting and adhering to the requirements identified within **Appendix E – Commission Security Requirements**.

3. Field Cabinet Locks

Provide all cabinets with locks using an interchangeable core, as directed by the Commission. Number (No.) 2 key locks will not be acceptable. Following the successful completion of system acceptance test, provide the Commission with five sets of new keys for all field cabinets, with all cabinets, keyed alike.

4. Trenches

At the end of each working day, backfill all trenches to a point that is within 10 feet from the end of each trench. Cover the 10-foot length of the open trench with a 1/2 -inch thick steel plate. Mark on the center of each steel plate used for decking over trenches the following information:

- Contractor’s Name
- Contact Person
- Emergency Telephone Number

Each letter shall be four inches high, in a space four inches wide, and each stroke forming each character shall be 3/4 inch wide. Provide clear and legible lettering.

Use the appropriate method to label the trench plate so that the lettering will not be eradicated due to traffic or people movement over the trench plate. When placing trench plates over excavations, secure the plates to the surface to prevent lateral movement avoiding an unsafe condition. Between the period of November 1st and April 1st, notify the Representative of any steel plates used to cover excavation made in snow emergency routes.

5. Underground Conduit

Use HDPE Conduit - SDR11 with smooth interior wall and smooth exterior wall. Manufactured in accordance with ASTM F2160 and ASTM D3035 from thermoplastic polymer conforming to the minimum standards defined in ASTM 3350 (See Table 1).

Use Tracer wire in conduit carrying fiber optic cables only. Tracer wire – provide solid copper or copper clad steel wire.

Table 1 - Resin Properties

The resin Properties shall meet or exceed the values listed below for HDPE

ASTM Test	Description	Values HDPE
D-1505	Density g/CM ³	0.941 - 0.955
D-1238	Melt Index, g/10 min. Condition E	0.05 - 0.50
D-790	Flexural Modulus, MPa (PSI)	80,000 min.
D-1693	Environmental Stress Crack Resistance Condition B,F ₁₀	96 hrs. min.
D-638	Tensile strength at yield ((PSI)	3000 min.
D-746	Brittleness Temperature	-75°C

6. Exposed Conduit

Use conduit made of Galvanized Rigid Steel (GRS) for all structure mounted conduit or exposed conduit. Flexible metallic conduit is acceptable between pieces of GRS where unique bends in an exposed conduit path is required. Flexible metallic conduit shall not have contact with the ground under any circumstance.

7. Flexible Delineator Posts

Place delineator posts at all junction boxes - orange for Communication cabling and/or red for Electrical cabling.

- a. Flexible Delineator Post – Type 2 Guide Post manufactured by Safe-Hit Corporation, 1930 W Winton Ave., Building 11, Hayward, CA 94545, 510-783-6550 or approved equal.
- b. Decals –
 - i. For Electrical - Non-reflective with warning message of “PA Turnpike Commission Buried Electrical Cable Call 717-939-9551”.
 - ii. For Fiber Optic - Non-reflective with warning message of “PA Turnpike Commission Buried Fiber Optic Cable Call 717-939-9551”.
 - iii. For other communication - Non-reflective with warning message of “PA Turnpike Commission Buried Communication Cable Call 717-939-9551”.

8. Electrical Conductors

Material - Section 910.2 and as follows:

Revise Section 1101.08, by adding:

- a. Supply electrical 600 Volt rated electrical cable. Installation shall be in accordance with Section 910.3(h).
- b. Provide soft drawn copper conductors per ASTM B-3. Provide Type THWN/THHN insulation. Provide 600 Volt rated, UL Listed conductors.
- c. Conductors sized AWG #8 or larger shall be Class B concentrically stranded per ASTM B-8. Conductors sized AWG #10 or smaller shall be solid.
- d. Use rubber molded breakaway connectors in accordance with PENNDOT RC-84M.
- e. Drawing for all electrical cables that shall be installed on breakaway posts.
- f. Triplex cable may be used in lieu of individual cables for aerial runs. Aluminum conductors are not acceptable.

Construction – Section 910.3

9. Electrical Power Supply

- a. For New Electrical Service – Section 1101.11 as applicable and as follows:
 - i. Provide electrical circuit breakers, disconnects, and fuses sized for the voltage and current ratings as required. All enclosures shall be NEMA 3R rated. Provide Class RK5 time delay current limiting fuses of voltage and current ratings as indicated.
 - ii. Provide black phenolic engraved plastic-laminate tags with white lettering, screw on type, for the disconnect. Provide black self-tapping screws for installation on equipment. Label the tag such as “TPMS - DISCONNECT”.

- iii. Provide $\frac{3}{4}$ "x 10' copper clad steel ground rods as specified.
 - iv. Provide #4 AWG Bare copper ground conductor to the ground rod. The conductor shall be connected to the ground rod by an exothermic weld.
- b. For New Branch Circuit or Tapped Branch Circuit – Section 1101.11 as applicable and as follows:
- i. Provide electrical circuit breakers and all other ancillary equipment to be compatible with the existing electrical distribution system.
 - ii. Provide a fused disconnect(s) external to the Service Plaza building so that access to the Service Plaza utility room is not required by maintenance personnel to disconnect power to the TPMS equipment. All enclosures shall be NEMA 3R rated.
 - iii. Co-locate branch circuit metering equipment with the external disconnect or main control equipment cabinet. All enclosures shall be NEMA 3R rated.

10. Fiber Optic Communication

Material – Corning or approved equal

- a. General. Certify the Fiber Optic Cable manufacturer meets the following requirements. Submit proof of this experience to the Representative.
 - ISO 9001 and ISO 14001 certified manufacturer
 - TL 9000 registered quality management system
- b. Outside Plant Cable (OSP). Provide fiber optic cable meeting the following general requirements:
 - Provide 12 count or 6 count fiber optic cable, single mode, as required.
 - Meet the requirements of RUS 7CFR1755.900, ANSI/ICEA S-87-640-1999, and Telcordia GR-20-Core.
 - All dielectric loose tube buffer design.
 - Incorporates water swellable yarns and tape.
 - Provide fiber optic cable meeting the following optical requirements:
 - a. Single mode
 - b. Meet the requirements of ITU-T G.652.D low water peak standard
 - Maximum attenuations shall be as follows:
 - a. at 1310 nm: 0.4 dB/km
 - b. at 1383 nm: 0.4 dB/km
 - c. at 1550nm: 0.3 dB/km
 - Attenuation shall be uniform with no discontinuities greater than 0.1 dB. The attenuation at 1383 ± 3 nm shall not exceed 0.4 dB/km.
 - IEEE 802.3z performance: The fiber shall support laser-based Gigabit Ethernet operation in the 100Base-LX (1300 nm) operating window at 5000 m.
 - The Mode-field diameter shall be as follows:

- a. Cutoff wavelength: less than or equal to 1260 nm
 - b. Polarization mode dispersion: less than or equal to 0.5 ps/ $\sqrt{\text{km}}$
 - c. Chromatic Dispersion: less than or equal to 3.3 ps/(nm.km) for 1285 nm through 1330 nm and less than or equal to 18 ps/(nm.km) at 1550 nm
 - d. Macrobend attenuation: the attenuation due to 100 turns of fiber around a $\text{Ø}75\text{mm}$ mandrel shall not exceed 0.05 dB at 1310nm and 0.10 dB at 1550 nm.
- Provide fiber optic cable meeting the following mechanical requirements:
 - All fibers within a cable shall be from the same manufacturer and shall contain no factory splices. Specifically, the fibers shall be from Corning with the following:
 - a. Typical core diameter: 8.3 mm
 - b. Cladding diameter: 25.0 +/- 1.0 mm
 - c. Core-to-cladding offset: less than or equal to 0.8 mm.
 - d. Cladding non-circularity: less than or equal to 1.0 %
 - Each fiber shall have a dual layered, UV acrylate coating applied to it by the manufacturer. The coating shall be mechanically strippable without damaging the fiber. The coating diameter shall be 245 +/- 10 mm.
 - Each fiber shall have a color coating applied to it by the manufacturer. The coating shall not affect the optical characteristics of each fiber. The color coding shall be in accordance with EIA/TIA-598-A. The colored fiber nominal diameter shall be 250 mm.
 - The central strength member shall consist of a dielectric, glass-reinforced plastic rod.
 - All fibers shall be enclosed in non-conductive loose buffer tubes. For fiber cables containing less than thirty-six (36) fibers, a maximum of six (6) fibers shall be placed in each buffer tube. For cables of thirty-six (36) or more fibers, a maximum of twelve (12) fibers shall be placed in each buffer tube. The fiber shall not adhere to the inside of the buffer tube. Each buffer tube containing fibers shall be color coded in accordance with EIA/TIA 598-A. In buffer tubes containing multiple fibers, the colors shall be stable during temperature cycling and not be subject to fading or smearing onto each other or into the gel filling material. Colors shall not cause fibers to stick together. Buffer tubes shall be of dual layer construction.
 - The buffer tubes shall be All-Dielectric Gel-Free cables that are fully water blocked using craft-friendly water-swallowable yarns and tapes.
 - Filler rods shall be used to fill all unused buffer tubes, or shall be used instead of unused buffer tubes. The filler rod shall be solid polyethylene material and shall be natural in color. The filler rods shall maintain the concentricity of the cable cross section where required.
 - Buffer tubes shall be stranded around the central strength member using the reverse oscillation, or “S-Z”, stranding process. Water swallowable yarns shall be applied longitudinally along the central strength member during stranding.
 - Two polyester yarn binders shall be applied contra-helicallly with sufficient tension to secure each buffer tube layer to the dielectric central member without crushing the buffer tubes. The binders shall be non-hygroscopic, non-wicking, and dielectric with low shrinkage.
 - A water swallowable tape shall be applied longitudinally around the outside of the stranded tubes/fillers. The water swallowable tape shall be non-nutritive to fungus, electrically non- conductive, free from dirt and foreign matter and homogenous.

- A ripcord shall be placed under the sheath for easy sheath removal. The ripcord color shall be orange.
- Tensile strength shall be provided by the central member and dielectric yarns which shall be helically stranded evenly around the cable core.
- The cable shall be sheathed with medium density polyethylene (MDPE) with a minimum nominal jacket thickness of 1.4 mm. The jacketing material shall be applied directly over the tensile strength members and water swellable tape. The polyethylene shall contain carbon black for ultraviolet protection and shall not promote the growth of fungus. The MDPE jacket material shall be defined by ASTM D1248, Type II, Class C and Grades J4, E7 and E8. The jacket shall be free of holes, splits and blisters, of uniform thickness and contain no metal elements. The jacket shall be marked in white with the following information:
 - a. Manufacturer's name and part number followed by "OPTICAL CABLE - xx F"
(where xx is the number of fibers in the cable)
 - b. Sequential foot markings with the actual length within -0/+1% of the length marking
 - c. Month and year of manufacturer
 - d. A telephone handset symbol as required by Section 350G of the NESC.
 - e. If a reprint of the marking is necessary, the re-print shall be in yellow.
- The cable shall be rated for a maximum tensile loading of 600 lbs. during installation and 200 lbs. long term installed.
- The cable shall be capable of withstanding a minimum bending radius of 10 times its outer diameter during operation and 15 times its outer diameter during installation without changing the characteristics of the optical fiber. The temperature rating of the cable shall be as follows:
 - a. Shipping, storage and operating: -40 degree F to +158 degree F
 - b. Installation: -22 degree F to +158 degree F
- The cable manufacturer shall certify that each reel of cable that is furnished meets or exceeds the following test requirements as defined EIA/TIA-455A Fiber Optic Test Procedures (FOTP):
 - a. Fluid Penetration: When tested in accordance with FOTP-82, a one-meter length of unaged fiber optic cable shall withstand a one-meter static head or equivalent continuous pressure of water for one hour without leakage through the open cable end.
 - b. Filling Compound Flow: When tested in accordance with FOTP-81, the cable shall exhibit no flow (drip or leak) of filling or flooding compound at 158 degree F.
 - c. Compressive Load: When tested in accordance with FOTP-41, the cable shall withstand a minimum compressive load of 125 lbf/in applied uniformly over the length of the sample. The load shall be maintained for a period of 1 minute. The load shall then be decreased to 63 lbf/in. Alternatively, it is acceptable to remove the 125 lbf/in load entirely and apply the 63 lbf/in load within five minutes at a rate of 0.1 in per minute. Attenuation measurements shall be performed before release of the 63 lbf/in

- load. The change in attenuation shall not exceed 0.15 dB during loading at 1550 nm.
- d. Cable Flex: When tested in accordance with FOTP-104, the cable shall withstand 25 mechanical flexing cycles at a rate of 30"1cycles per minute with a sheath diameter not greater than 20 times the cable diameter. The fibers shall not experience an attenuation change greater than 0.1 dB at 1550 nm. The cable jacket shall exhibit no cracking or splitting when observed under five times magnification.
 - e. Temperature cycling: When tested in accordance with FOTP-3, the change in attenuation at extreme operational temperatures (-40F to +158F) shall not exceed 0.2 dB/km at 1550 nm.
 - f. Tensile load: When tested in accordance with FOTP-33, using a maximum mandrel and sheave diameter of 560 mm, the cable shall withstand a rated tensile load of 601 lbf and residual load of 30% of the rated installation load. The axial fiber strain shall be less than or equal to 60% of the fiber proof level after completion of 60 minute conditioning and while the cable is under the rated installation load. The axial fiber strain shall be less than or equal to 20% of the fiber proof level after completion of 10 minute conditioning and while the cable is under residual load. The change in attenuation at residual load and after load removal shall not exceed 0.15 dB at 1550 nm.
 - g. Low or high temperature bending: When tested in accordance with FOTP-37, the cable shall withstand four full turns around a mandrel of less than or equal to 10 times its diameter after conditioning four hours at test temperatures of -22 degree F and +140 degree F. Neither the inner or outer surface of the jacket shall exhibit visible cracks, splits, tears or other openings. Optical continuity shall be maintained throughout the test.
 - h. Cable twist: When tested in accordance with FOTP-85, a length of cable no longer than 6 feet shall withstand 10 cycles of mechanical twisting. The change in attenuation shall not exceed 0.15 dB at 1550 nm.
- Meet the following factory testing requirements:
 - a. All optical fibers shall be 100% attenuation tested. The attenuation of each fiber shall be provided with each reel.
 - Meet the following delivery requirements:
 - a. The cable shall be delivered on reels without splices. Ten feet of each end of the cable shall be accessible for testing at the Proposer's facility prior to installation. Both ends of the cable shall be sealed to prevent moisture ingress.
 - A durable weatherproof tag or label on each reel shall contain the following information:
 - a. Manufacturer's name
 - b. Cable Type
 - c. Length of cable contained on the reel in feet
 - d. Proposer's name
 - e. The Commission's contract number
 - f. Reel number

- Attached to each reel in a weatherproof envelope shall be a shipping record. The shipping record shall contain the following in addition to the above information:
 - a. Date of manufacture
 - b. Date cable tested
 - c. Cable characteristics (size, attenuation of each fiber)
 - d. Cable reel identification number
- c. Connectors. Provide Connectors that meet the following requirements:
 - Type LC compatible with Ethernet switches provided as part of this project.
 - Telcordia GR-326 Issue 3 compliant and as specified under these requirements, whichever requirement is more stringent shall apply.
 - All connectors shall use ceramic ferrules. Fiber is to be secured within the ferrule with epoxy in accordance with the requirements of the connector or epoxy manufacturer.
 - A strain relief mechanism shall be provided for coupling the connector to the fiber's aramid strength member.
 - Operating temperature: -40 degree F to +158 degree F
 - Insertion loss <0.25 dB typical individual loss, 0.4 dB maximum when measured in accordance with FOTP-171.
 - Insertion loss <0.25 dB typical individual loss, 0.4 dB maximum when measured in accordance with FOTP-171.
 - Return loss <-55 dB when measured in accordance with FOTP-107
- d. Cable Tags. Provide cable tags of weather resistant, non-ferrous metal, nylon or other non-conducting material. Provide tags not less than 0.75 inches in diameter, and not less than 0.03125 inches thick. Permanently mark each tag with identification information, legibly stamped on metal tags or legibly lettered with permanent ink on the nylon tags. Unless otherwise approved by the Representative, cable tags must read "Turnpike Fiber Optic Cable". The Representative must approve the method of labeling.

Construction - Sections 910.3(a) and 910.3(h) paragraphs one, three, four and five as indicated, and as described below:

- a. Pre-Installation Requirements. Provide responsibility for the fiber optic cable security and adherence to these specifications, from its manufacturer to the time the network is accepted. Prior to installation of the cable plant, provide to the Representative for approval, a Cable Plant Installation Plan and proof of appropriate training and experience for personnel who shall be installing the fiber.
- b. Cable Plant Installation Plan. Provide a Cable Plant Installation Submission including:
 - Shop drawings and catalog cuts for all cable, connectors, splice equipment, splice enclosures, patch cable, optical fiber patch panel, and installation and test equipment.
 - Manufacturer's recommended cable installation techniques such that the optical and mechanical characteristics of the cable are not degraded at the time of installation. The proposed recommendations shall include the following:

- Cable manufacturer's approved pulling lubricants for use on the cable and method of installation. No other lubricant shall be permitted.
- Installation set-up included size and type of rollers, feeder guides, tension gauge make and model number, attachment of pulling jig to jacket and direction of pull.
- Maximum pulling tensions and corresponding method of attachment of pulling grip to the cable.
- Slack of 60 feet of cable to be left in pull boxes and enclosures containing splices, 30 feet on each side of the splice, required for splicing and splice enclosure preparation.
- Minimum bending radii, which shall specify a radius both for the installation and for the long-term installation.
- Method to pull multiple cables including a mixture of power and fiber, as recommended by the fiber cable manufacturer.
- Method to seal cable ends to prevent water ingress until the cable is terminated.
- Splice material manufacturer's recommended procedures for installation of the splices. Expected attenuation between termination points of all fibers including losses resulting from splices and connectors.

Do not install fiber optic cable until all of the items listed above have been submitted and approved by the Representative.

- Slack of 30 feet of cable to be left in Junction Boxes that are intended to contain future Fiber Optic Cable splices.
 - Provide cable slack at (4) intermediate points at Junction Boxes; Distribute cable slack throughout intermediate Junction Boxes based on field conditions and as approved by the Representative.
- c. Experience Requirements. Provide proof of the experience requirements defined below, including resumes listing each person's name, address, telephone number, proof of appropriate training and projects worked on and the names of references who can be contacted regarding the installed optical fiber systems. Document for all personnel involved in the installation, splicing and testing of the optical fiber cable:

A minimum of five (5) years' experience in the installation of optical fiber cable including fusion splicing, terminating and testing of single mode fiber.

Installed a minimum of five (5) systems where the optical fiber cable has been installed outdoors in conduit and where the systems have been in continuous operation for at least two years.

Personnel involved in specific tasks shall be certified to meet the following requirements:

- Trained and certified in optical fiber splicing procedures by the manufacturer of the fiber optic splice material/equipment.

- Trained and certified in optical fiber cable installation and handling procedures by the manufacturer of the optical fiber cable used.
- Trained and certified by the manufacturer of the optic fiber test equipment used in performing the test.

Pre-installation Verification Test: The fiber optic cable shall be tested at the site storage area prior to installation. Each optical fiber in the cable shall be tested from one end with an OTDR compatible with wavelength and fiber type. Testing shall check for continuity, length, anomalies, and approximate attenuation. Each measurement shall be recorded with color, location and type of fiber. In the event that a meaningful measurement cannot be made from one end, it shall be performed from the opposite end of that fiber.

Preinstallation Verification Test shall be performed to meet the requirements mentioned in the Cable Installation Verification Test below.

Test Documentation: Prepare a form or table for documenting fiber connections, and submit this form or table for approval by the Representative. Approval of the test documents is required before installation of the fiber. Provide test results in a CSV (Comma-Separated Value) or Microsoft Excel format. Provide any "viewer" software application required for the Representative to review the information.

- d. Installation. Pull fiber optic cable into existing conduit, existing cable trays, and new conduit or ducts installed under this project. Do not degrade the optical and mechanical characteristics of the fiber during installation. Install the cable such that neither the minimum bend radius nor the maximum tension is violated, both during and after installation. Unless otherwise approved by the Representative, the equipment used and the procedures followed are as specified in the latest edition of Corning Cable Systems Recommended Procedures. Do not proceed without the Representative being present, unless otherwise directed.

Do not pull cable through any intermediate junction box, pull box, or any other opening in the conduit, unless specifically approved by the Representative. Pull the necessary length of cable to be installed from junction box or cabinet to the immediate next downstream junction box or cabinet. Carefully store the remaining length of cable to be installed in the next downstream conduit section in a manner that allows that length of cable to be safely pulled into the next downstream conduit section. Install cable entering a junction box or cabinet directly from the cable reel storage stack, and pull directly out of the immediate downstream pull box or cabinet.

Cable Installation Verification Test: After installing each cable section, but prior to splicing or termination, perform the following tests:

Using an OTDR, test each fiber in the link at 1310 nm and 1550 nm for fiber attenuation, continuity, length and anomalies. This test shall be performed from both ends. Each fiber shall meet the following criteria:

Attenuation: Not to exceed 0.4 dB/km at 1310 nm and 0.3 dB/km at 1550nm
Anomalies: No event shall exceed 0.3 dB.

Using an optical source and power meter, measure the attenuation from both ends. The measured attenuation shall meet the requirements defined for the attenuation using the OTDR.

If the above criteria are not met, the Contractor shall replace the entire section of cable.

Test Documentation: Prepare a form or table for documenting fiber connections, and submit this form or table for approval by the Representative. Approval of the test documents is required before splicing and terminating of the fiber. Provide test results in a CSV (Comma-Separated Value) or Microsoft Excel format. Provide any "viewer" software application required for the Representative to review the information.

Splicing: Provide all required equipment and consumable supplies. Do not splice between termination points.

Make fusion splices, incidental to the cost of cable, wherever the cable is subject to transition to individual fibers or wherever two individual fibers are spliced. Splice all optical fibers, including spares, to provide continuous runs. Do not provide a full splice of the fiber optic cable, i.e., all fibers within the cable being spliced, more frequently than once every 5,000 feet. Store 60 feet of slack cable at each splice location, 30 feet on either side of the splice.

For connection of the fiber optic cable to fiber optic distribution panel or splicing to other cables, cut only those fibers needed for the connection or splice. Use splice trays to hold the spliced and unspliced fibers, with each fiber neatly secured to the tray. Contain all buffer tubes entirely within the splice tray, with no tubes being exposed.

Package each spliced fiber in a protective sleeve or housing. Completely re-coat bare fibers with a protective, room-temperature vulcanizing (RTV) coating, gel or similar substance as recommended by the cable manufacturer, prior to application of the sleeve or housing, so as to protect the fiber from scoring, dirt, or microbending.

Termination: In the toll plaza and equipment cabinets where, optical fibers are to be connected to terminal equipment, provide five (5) feet of Fiber Optic cable slack, matching connectors with factory-installed fiber pigtails of sufficient length, and splice pigtails to the corresponding optical fibers. Do not field install connectors. Provide fiber optic pigtails buffered and strengthened with aramid to reduce the possibility of accidental damage to the fiber or connection. Properly protect unused optical fibers with sealed end caps. Provide connectors meeting the requirements herein.

Replacement: If the above-specified cable, splice, and termination criteria are not met, replace the entire section of cable.

Identification: Install cable tags, incidental to the cost of cable, at each junction box, controller cabinet, and splice cabinet. Affix tags to the cable using bands at least 0.5 inches

wide to avoid crushing the buffer tubes and optical fibers in the cable. Nylon or plastic cable ties are not permitted. The Representative must approve the method of attachment.

Optical Fiber Cable Plant Installation Verification Test: Perform this test after the complete optical fiber cable plant has been installed for the facility for each link and all patch chords as required to provide that a continuous link has been installed.

Using an OTDR, test each fiber in the link at 1310 nm and 1550 nm for fiber attenuation, continuity, length and anomalies. Perform the test from both ends. Each fiber shall meet the following criteria:

- Attenuation: Not to exceed 0.4 dB/km at 1310 nm and 0.3 dB/km at 1550nm + 0.1 dB/splice + 0.5 dB/connector for links.
- Remake any splice with a loss exceeding 0.2 dB until its loss falls below 0.2 dB. Record each attempt for purposes of acceptance.
- Anomalies: No event shall exceed 0.3 dB.
- Using an optical source and power meter, measure the attenuation from both ends.
- The measured attenuation shall meet the requirements defined for the attenuation using the OTDR.

Successful completions of the above tests are the basis for acceptance. If the above criteria are not met, isolate the problem and replace the splice, section of cable or factory connectorized section of cable that causes the fiber not to meet the acceptance criteria.

Test Documentation: Prepare a form or table for documenting fiber connections, and submit this form or table for approval by the Representative. Approval of the test documents is required before splicing and terminating of the fiber. Provide test results in a CSV (Comma-Separated Value) or Microsoft Excel format.

Record all splice losses in tabular form and submit to the Representative for approval. Submit chart recordings of the "signature" with the splice data with a record of all OTDR settings and the OTDR locations written on the trace. The Representative must witness all splice loss measurements. Submit the form to the Representative within five days of the splice being made. Provide any "viewer" software application required for the Representative to review the information.

11. Junction Boxes

Material – Section 910.2

Construction – Section 910.3 and as follows:

Revise Section 910.3(p) by adding:

- a. Bond metal framed junction box and cover to ground. The bond shall provide a solid electrical and mechanical connection.
- b. Cast the following labels into the covers:

For electric boxes - “PENNSYLVANIA TURNPIKE COMMISSION ELECTRICAL CABLE”

For communication boxes - “PENNSYLVANIA TURNPIKE COMMISSION COMMUNICATION CABLE”

- c. Ground all junction boxes in accordance with NEC Article 250.
- d. Place on top of at least 12” of No. 57 coarse aggregate, 18” in poor drainage areas, as required by field conditions.

12. Closed Circuit Television Cameras – Standard PTC Dedicated Pole Deployment

Material - Furnish all hardware specified herein, tools, equipment, cables, materials, supplies, and manufactured articles, and perform all operations and integration, as indicated and as specified herein.

Provide all cabling, connectors, terminators, mounting hardware, shelves, cable strain relief hardware and other ancillary accessories required for the interconnection of the equipment, specified herein to perform the functions required by this special provision.

- a. Camera and Encoder. Provide the following CCTV camera and encoder device:

Camera: Bosch AutoDome 7000 Series

- PTZ 30x Day/Night
- 1080p HD, 720p HD, 432p SD, 288p SD, 144p SD
- STD Indoor/Outdoor Pendant
- Clear Acrylic Bubble
- H.264 Compression
- Integrated Ethernet 10BASE-T/100BASE-TX, auto-sensing, half/full duplex

- b. Cables and Surge Protectors. Provide and install all necessary cables, as required, recommended by the camera and cable manufacturers and approved by the Representative.

Install Power Over Ethernet (POE) camera communications and camera power cabling between the Camera Assembly and the Camera Control Cabinet. Use outside plant (OSP) weather resistant material for these cables.

Provide surge and lightning arrestors incidental to the cable installation, for all cables that are entering and leaving the cabinet, including the camera power and communication cables. Protectors may be DIN rail or panel mount. Include surge and lightning arrestor details in the shop drawings for review and approval by the Representative.

For the POE cables, provide surge protectors that meet the following requirements:

1. Response time: 1ns maximum
2. Peak Surge Current: 10kA (when subjected to an 8x20µs waveform)

3. UL 497 listed

4. Connector: Terminal Strip

Provide a video interface panel inside the cabinet to terminate the cables that run between the camera control cabinet and the camera assembly. Provide connectors with a screw type locking mechanism for the secure connection of the cables.

Include for each Camera Control Cabinet a Radio Frequency Interference (RFI) filter and an AC power transient surge suppressor that meet NEMA TS-2 transient protection requirements.

c. CCTV camera control cabinets shall be pole mounted.

Provide all CCTV camera control cabinets meeting or exceeding the requirements of a NEMA 3R rating. Provide cabinet and doors fabricated from 0.125-inch minimum thickness of 5052-H32 sheet aluminum and adequately reinforced.

Provide continuous seams, solid welds made by the Heliarc welding method.

Provide neatly formed welds, free from cracks, blowholes, and other irregularities.

Provide cabinet roof, which is pitched away from the door, to prevent water from collecting on the top of the cabinet. Provide a drip shield, which is incorporated into the construction of the roof to protect the door from run-off water.

Provide a cabinet, which has minimal dimensions of height, depth, and width of 51 inch, 24-inch, and 24-inch respectively such that selected components and cables can be installed. Should a custom design cabinet be recommended, provide justification and seek approval from the Representative.

Meet minimum clearances (as specified by the manufacturer and approved by the Representative) of all components, and do not exceed all minimum bending radius for cables as specified by the manufacturer and approved by the Representative, including a 15-inch high space between the bottom of the equipment mounted at the lowest level on the rack and the bottom of the cabinet.

Provide vented cabinet. Provide cabinet, which has provisions for mounting a forced air fan system that is thermostatically controlled with air exhausted through the cabinet ventilation system. Provide replaceable HEPA air filter.

Install cabinets with consideration to safety of maintenance personnel. Furnish door handles, which provide for positive latching of the door at three points as viewed when facing the door -top, bottom, and left side.

Provide door hinged along the right side. Provide hinges and pins made of stainless-steel conforming to ASTM A276. Provide one continuous hinge mechanism along the entire

right side. Provide doors equipped with an adjustable doorstop to hold the door open at the angles of 90 degrees, 135 degrees, and 180 degrees with the front of the cabinet.

Provide all cabinets with a hasp locking mechanism which provides a means to secure the door and handle in the closed / locked position. The Contractor shall be responsible for providing temporary locks until the project is accepted at which time the Commission will provide padlocks.

Provide gaskets, which are permanently bonded to the metal on all door openings. Cover the mating surface of the gaskets with a silicone lubricant to prevent sticking to the mating surface.

Equip the inside door with a document pocket capable of holding 11-inch x 14-inch documents. Provide all necessary camera control and video transmission cables in accordance with applicable sections and as recommended by the manufacturer.

Provide a cabinet equipped with adjustable shelves, including a pullout shelf capable of holding a minimum 20 lb. to support a laptop computer. Provide shelves to mount equipment as needed, including communications and power equipment. Do not stack equipment on top of other equipment. Equipment may be set on shelves installed on shelves or attached to panels mounted to the rear or side walls of the enclosure.

Electric Distribution Panel - Power all cabinet accessories from a power distribution panel to be furnished and installed as an integral part of the cabinet.

Install Electrical Distribution Panel in a manner that all CCTV cabinet electronics can be easily accessed and in accordance with the National Electrical Code clearance requirements.

Provide a power distribution panel, which has the following ratings:

- 120/240 Volt
- Single Phase
- Three Wire
- 10KAIC (Symmetrical)
- 40 Amp Main Lugs
- 4 Single Pole Circuit Breaker Capacity
- NEMA 1 Enclosure
- Isolated Neutral Bus
- Ground Bus

Provide power distribution panel containing the following circuit breakers. Provide single phase, 120-Volt Rated, 10 KAIC (Symmetrical) circuit breakers of the quantity and current capacity as required.

Neutral bus - Provide a neutral bus of solid metallic strip rigidly mounted on the power panel and isolated from cabinet ground. Provide all neutral conductors terminated on the neutral bus.

Ground bus - Bond the camera control cabinet, the main disconnect, the power distribution panel, the service ground wire and the branch circuit ground wires to the ground bus. Furnish and install a 3/4 inch by 10-foot copper clad steel ground rod at the camera control cabinet location. Bond the ground bus to the ground rod with AWG #4 Ground Wire using an exothermic weld. Drive the ground rod 18” below final grade.

Cabinet Light - Furnish and install in the camera control cabinet, one 20-watt, commercially available, commercial grade, fluorescent lamp and lamp assembly. Provide a U.L.-listed assembly. Provide a lamp, which is automatically turned on when the cabinet door is opened, and automatically turned off when the door is shut. Provide a lamp assembly positioned so as to provide light to all of the equipment within the cabinet. Provide a lamp assembly, which is shielded so as not to shine directly in the eyes of servicing personnel.

Convenience Outlet - Furnish and install one duplex, NEMA 5-15R, GFCI receptacle with box and cover plate in an accessible location when all equipment is installed within the camera control cabinet. Furnish U.L.-listed receptacle meeting Federal Spec. # WC596.

Fan - Furnish and install heavy duty cooling fan in the cabinet. Equip the cabinet with a 100 CFM, 0.18 amp at 120 VAC, cooling fan. Furnish a thermostatically controlled fan equipped with a fan guard.

Fiber Optic Distribution Panel – As required if fiber optic cable is proposed: Furnish a fiber optic distribution panel for the full cable termination and optical continuation of fiber optic cables as required. The unit shall act as an interface between the fiber optic cable and the fiber optic patch cables located within the cabinet. The panel is configured in connector fields consisting of rack mounted bulkhead connectors. The field shall contain a sufficient quantity of connectors to accommodate the maximum number of the fibers entering the equipment cabinet. Each connector comes pre-connected with 12 single mode LC adapters. The panel shall have the capability to store the slack cable. Provide patch cables as required.

If the CCTV Cabinet houses vehicle detection equipment or other CCTV equipment requiring network switching, Provide POE (Power over Ethernet) capable Managed Network Switch in accordance with Section 1201.2(b). Provide managed switch with a minimum of two Gigabit-Ethernet SFP ports capable of accepting optical or copper transceivers. Provide optical SFP transceivers that accept LC Connectors.

If the CCTV Cabinet does not require a switch, provide an appropriate POE injector of the type and power output rating required to power the camera.

Provide TVSS (Transient Voltage Surge Suppression) for all copper cabling entering/exiting the cabinet in accordance with Section 1201.2(b).

Each CCTV cabinet shall contain a Network Power Controller (NPC) capable of removing and reapplying power to the protected circuit within that CCTV cabinet. The protected circuit is to cover all sensitive cabinet electronics. Communications to activate the remote reset shall be consistent with the primary communication used to return video or data back to the TMC. The NPC shall include the following features:

- RJ-45 Ethernet connector providing 10baseT or greater connectivity
 - Power required: 9-28 volts DC, less than 3 watts at 100 mbps with all 4 switching channels activated
 - Temperature range -4 to +158 deg F
 - Capable of switching at least 15 Amps AC at each of 4 separate switching channels
 - For each switching channel, capable of command switch on, command switch off, pulse with specified duration ranging from .1 to 86,400 seconds with 99.99% accuracy
 - Uses standard TCP/IP communications protocol with Static IP address capability
 - Available IP port range from 1 to 65535
 - Built-in password protected web page for remote control, remote status and remote configuration via a web browser
 - Machine to machine HTTP API and TCP/IP Modbus for remote status and operation
 - External reset button
- d. NTCIP. To ensure compatibility and interchangeability with equipment furnished in previous and future contracts, the CCTV Camera Assembly shall be compliant with the latest version of the NTCIP 1201 and 1205 Standards where applicable, as defined by AASHTO, ITE, and NEMA.

Construction

- a. General. Construct the CCTV System in accordance with all requirements of the manufacturer, all applicable codes, regulations and Standards.

Furnish all necessary materials such as cables, connectors, splicing kits, and other appurtenances as required by the manufacturer and the Commission for a complete installation of the system.

Install CCTV camera system elements as indicated and as recommended by manufacturer to provide fully functional CCTV system.

Obtain the services of a site representative/technical advisor from the manufacturer to assist in the construction, set up, turn-on and testing of the completed installation. The system must be IP-addressable. Coordinate with the Commission for all required configuration settings including IP addresses and firmware versions. Once construction and initial testing is completed, contact the Representative to arrange for connection to the Commission's Genetec system.

Before starting Construction, verify existing underground and overhead lines.

- b. Camera Assembly. Mount the dome camera housing as recommended by dome manufacturer and the camera lowering device manufacturer. Use weather and corrosion resistant hardware to withstand a wind load of 100 mph and with a 30 percent gust factor using a 1.65 safety factor. Install and setup all elements of camera assembly prior to field installation.

Provide any necessary hardware and/or software to enable operator to change camera set-up parameters.

Set up the preset views and electronic limit stops for each camera as directed by the Representative. Submit a list of the proposed preset views and their proposed titles for review and approval.

- c. Camera Control Cabinet. Install a camera control cabinet on the camera pole.

Fasten all internal components securely to the enclosure using explicit mechanical means such as clamps, bolt/nut sets and screws.

Use an insulated grounding bushing on the end of the conduits inside the cabinet to prevent chaffing of the cables. Bond all conduits to the grounding system with a #4 AWG ground conductor.

13. CCTV Lowering Device and Pole – Standard PTC Dedicated Pole Deployment

Material

- a. Suspension Contact Unit - Provide the suspension contact unit that has at least a load capacity of 600 lbs. with a 4 to 1 safety factor and locking mechanism between the fixed and moveable components of the lowering device. Provide a moveable assembly with a minimum of 2 latches.

Provide a latching mechanism, which securely holds the device and its mounted equipment.

Provide latching mechanism, which operates by alternately raising and lowering the assembly using the winch and lowering cable such that when latched, all weight is removed from the lowering cable.

Provide the fixed unit with a heavy-duty cast tracking guide and means to allow latching in the same position each time. Provide a weatherproof contact unit housing with a replaceable neoprene gasket to seal the interior from dust and moisture.

Design the prefabricated components of the lift unit support system such that it precludes the lifting cable from contacting the power or video cabling. Provide a conduit mount adapter for housing the lowering cable. The adapter shall have a threaded interface to allow the connection of a contractor provided conduit and is to be located below the cable stop block at the back of the lowering device. Supply internal conduit in the pole as required. The stainless-steel lowering cable is the only cable permitted to move within the

pole or lowering device during lowering or raising. During lowering and raising operations, all other cables are to remain stable and secure.

The Lowering Device must be properly equipped with a multiple contact connector designed and tested specifically for Ethernet Fed IP Cameras and/or IP Equipment utilizing Gigabit communications with or without POE. The Contact Connectors shall be designed for extreme environmental outdoor use and per the technical requirements in the specifications.

Each contact block shall consist of a female and male half. For environmental durability, the female and male socket contact halves shall be made of an outdoor rated thermosetting synthetic rubber. The female barrel contacts and the male pin contacts shall be permanently and integrally encased in this rubber material to ensure optimum protection of moisture and the environment. For optimum weatherproofing, each male shall be self-wiping with a shoulder or “O” ring at the base of each male contact so that it will recess into the female block, thereby giving a rain-tight seal to each individual contact when mated. Further, the wire leads from both the male and female rubber contact blocks shall be permanently and integrally molded in the synthetic rubber body.

For optimum electrical conductivity and durability, all signal carrying male pin and female socket/barrel contacts shall be copper alloy and Gold plated per ASTM B-488. To ensure pins are not easily bent, the Male contact sizing shall be a minimum of 0.09 inches O.D., while the female contacts shall be at least 0.09 inches I.D. at the contact area. All contacts shall be a minimum of 0.09 inches in diameter at the contact area. Each individual female barrel contact shall have a sleeve which prevents foreign particles from entering the contact area as well as preclude the possibility of the tines of the female contact from opening beyond allowable limits and ensure a snug fit around the respective male pins. The contact block shall have a spring-loaded design that provides constant pressure on the contact block enabling consistent electrical and data performance during moderate shaking conditions.

For proper and complete performance, each Ethernet/IP Male-Female connector shall be equipped with a total of (14) specifically designed contacts. Nine (9) contacts silver soldered to Cat6a High Flex Shielded Industrial Grade Network Cable. Shielding shall include both an overall shield of 38 AWG tinned copper braid over the cable core and a second shield of aluminized foil applied over the braid. The Ethernet cable shall be end terminated with a RJ45 (shielded) 10G male connector. There shall be Five (5) additional gold-plated contacts silver soldered to #18/1 UL lead wire – bare and numbered 1-5, which may be used for additional camera/equipment requirements including but not limited to power, alarms or grounds. All cable jackets shall be outdoor rated. All silver soldering shall be per IPC J STD-001E. Each individual contact shall be rated for up to 600v and 7A but de-rated according to the wire used in the application.

- b. Lowering Tool - Provide one (1) powered portable tools for safely raising and lowering the camera assembly. The tools shall consist of a lightweight metal frame and winch assembly with cable as described herein, a quick release cable connector, an adjustable

safety clutch and a variable speed industrial duty electric drill motor. The tools shall be compatible with accessing the support cable through the hand hole of the pole.

The lowering tool shall attach to the pole with one single bolt and shall support itself and the load assuring lowering operations when loaded. The lowering tool shall have a reduction gear to reduce the manual effort required to operate the lifting handle to raise and lower a capacity load. Provide an adaptor to operate the lowering device by a portable drill using a clutch mechanism. A positive breaking mechanism shall be equipped to secure the cable reel during raising and lowering operation and prevent freewheeling.

Each portable lowering tool shall be provided with a protective case for transportation and storage. The lowering tool case shall have Interior Dimensions of 29.00" x 18.00" x 10.50", be watertight, and be made from HPX resin. The case shall have five press and pull latches and two padlock-able hasps. It shall have a valve to equalize air pressure inside and out. It shall have a telescoping handle and In-line wheels for portability. The case shall be Pelican iM2950 Pelican Storm Case. The foam insert shall be CNC machine cut polyethylene foam designed to fit the lowering tool and clutch assembly. Provide all pulleys for the camera lowering device and portable lowering tool with sealed, self-lubricated bearings, oil tight bronze bearings, or sintered bronze bushings.

Provide lowering cable with a minimum 1/8-inch diameter stainless steel aircraft cable with a minimum breaking strength of 1740 pounds with 7 strands of 19 wires each.

Protect from exposure to the weather all electrical and video connections between the fixed and movable lowering device components by providing a waterproof seal to prevent degradation of the electrical contacts.

Design the electrical connections between the fixed and movable lowering device components to conduct high frequency data bits and one (1) volt peak to peak video signals as well as the power and control requirements for operation of dome environmental controls.

Provide interface and locking components made of stainless steel and/or aluminum. All external components of the lowering device shall be made of corrosion resistant materials, power coated, galvanized or otherwise protected from the environment by industry-accepted coatings to withstand exposure to a corrosive environment.

The camera junction box shall be of two-piece clamshell design with one hinge side and one single latch side to facilitate easy opening. The general shape of the box shall be cylindrical to minimize the EPA. The Camera Junction Box shall be cast aluminum with stabilizing weights on the outside of the box to increase room on the interior. The box shall be capable of having up to 40 pounds of stabilizing weights. The bottom of the Camera Junction Box shall be drilled and tapped with a 1-1/2" NPT thread to accept industry standard dome housings and be able to be modified to accept a wide variety of other camera mountings. The junction box shall be gasketed to prevent water intrusion. The bottom of the box shall incorporate a screened and vented hole to allow airflow and reduce internal condensation. If utilizing a CCTV dome housing, it must be furnished

from the camera factory with an epoxy sealed connection flange at the point of connection of the dome to the CLD junction box to ensure that there is no moisture migration from the CLD junction box into the dome.

Provide weights and/or counterweights as necessary to assure that the alignment of pins and connectors are proper for the camera support to be raised into position without binding.

Provide the lowering unit with sufficient weight to disengage the camera and its control components in order that it can be lowered properly.

With each system, provide a set of cables of sufficient length to run from the camera control cabinet to the lowered Dome assembly. The connectors on each cable shall securely mate with the video interface panel and the camera assembly, allowing all functions of the camera assembly to be exercised while it is in the lowered position. Provide a mounting flange sufficient for mounting their respective camera assembly to the bottom of the camera connection box.

The camera lowering device shall be the [MG]² Model Family CLDMG2-HYPIP for IP cameras for the pole height proposed, or approved equal.

- c. Pole, Foundation and Maintainer Pad –
- 50' CCTV Pole - Section 1210.2(j)
 - 70' CCTV Pole - Section 1210.2(j)
 - Cement Concrete - Section 704 (Class A)
 - Non-shrink Mortar - Section 1001.2(d)
 - Wire Mesh - Galvanized steel wire, No. 10 Gage, with 1.5 inch square opening
 - CCTV Pole Foundation – Section 1210.2(k)
 - Drilled Caissons - Section 1006.
 - Reinforcing Bars, Epoxy Coated - Section 1002
 - No. 57 Coarse Aggregate - Section 703.2
 - 4 x 4 Steel Wire Fabric W4 x W4

Construction - Provide shop drawings for approval by the Representative before fabrication.

Fabricate new tapered steel pole for the CCTV camera as indicated in the contract drawings. Provide standard hand hole and service entrances as shown in the contract drawings. Provide grounding rod, wire, etc. in accordance with RC-84M.

Galvanize all fabricated structural steel including interior and exterior surfaces of tapered poles, anchor bolts, bolt hardware, anchor plates, base and ring plates and all appurtenances.

For CCTV pole foundations, construct in accordance with Section 910.3, and as indicated. Include galvanized mesh screening around base of poles as directed by the Representative.

Provide a reinforced concrete caisson and all hardware required to support and anchor the mounting pole. Construct 48" diameter reinforced concrete caisson foundations consisting of

shaft sections without casing left in place. Place No. 57 Coarse aggregate and Class A cement for the maintainer pad. Provide a camera lowering system at the designated field locations and as specified herein.

Provide a camera lowering system designed to support and lower the dome without damage or causing degradation of camera operations. Furnish and install a 1/8” thick neoprene gasket between the cap plate and the camera attachment plate.

The camera lowering system device and the pole are interdependent, and thus, must be designed as a single unit or system. Provide a lowering system consisting of a suspension contact unit, support divided channel arm, and a pole adapter for attachment to pole top tenon, pole top junction box, and camera connection box. Provide support arm and receiver brackets designed to self-align the contact unit with the pole centerline during installation and insure the contact unit cannot twist under high wind conditions.

Provide the entire device capable of withstanding wind forces of 100 mph with a 30 percent gust factor using a 1.65 safety factor. Provide a camera-lowering device from a manufacturer with a minimum of 3 years of experience in the successful manufacturing of such systems.

Install and connect the hardware to the CCTV. Perform an on-site test to ensure that the field performance of the system meets all functional requirements. Submit test procedures for approval in accordance with the RFP and Special Provisions.

The system components shall be covered by a minimum one-year warranty period, during which any manufacturing defects or system failures shall be replaced or repaired without any additional cost to the Commission. The warranty shall begin after the completion of the Operational Acceptance Test.

Labor and on-site visits, including materials and installation equipment, required to repair or replace defective equipment shall be provided as part of the warranty. The Contractor shall provide the Commission with the contact person name and phone number, during and after the warranty period. Traffic control and lane closure for any warranty work are not included as part of the warranty. Lane closure and traffic control shall either be provided by Commission or provided by the manufacturer at an additional cost to be paid for by Commission.

Repairs of Equipment when defect(s) result(s) from one or more of the following causes shall not be covered:

- Exposure to hurricane and other severe acts of God;
- Operation, maintenance or modification which is not in accordance with the Manufacturer's procedures;
- Theft.

14. Closed Circuit Television Camera – Mounted to Existing Structure

Material - Furnish all hardware specified herein, tools, equipment, cables, materials, supplies, and manufactured articles, and perform all operations and integration, as indicated and as specified herein.

Provide all cabling, connectors, terminators, mounting hardware, shelves, cable strain relief hardware and other ancillary accessories required for the interconnection of the equipment, specified herein to perform the functions required by this special provision.

- a. Camera and Encoder. Provide the following CCTV camera and encoder device:

Camera: Bosch AutoDome 7000 Series

- PTZ 30x Day/Night
- 1080p HD, 720p HD, 432p SD, 288p SD, 144p SD
- STD Indoor/Outdoor Pendant
- Clear Acrylic Bubble
- H.264 Compression
- Integrated Ethernet 10BASE-T/100BASE-TX, auto-sensing, half/full duplex

Or

Approved Equal.

- Compatible with the Commission video management system (Genetec).
- Meets or exceed the environmental ratings of the Bosch AutoDome 7000 Series
- H.264 Compression
- Integrated Ethernet 10Base-T/100Base-TX, auto-sensing, half/full duplex
- Minimum resolution of 720p HD
- Multicast streaming
- PTZ, minimum zoom capability to meet the needs of the application.
- Day/Night capabilities equal or greater than the Bosch AutoDome 7000 Series

- b. Cables and Surge Protectors. Provide and install all necessary cables, as required, recommended by the camera and cable manufacturers and approved by the Representative.

Install Power Over Ethernet (POE) camera communications and camera power cabling between the Camera Assembly and the Camera Control Cabinet. Use outside plant (OSP) weather resistant material for these cables.

Provide surge and lightning arrestors incidental to the cable installation, for all cables that are entering and leaving the cabinet, including the camera power and communication cables. Protectors may be DIN rail or panel mount. Include surge and lightning arrestor details in the shop drawings for review and approval by the Representative.

For the POE cables, provide surge protectors that meet the following requirements:

- Response time: 1ns maximum

- Peak Surge Current: 10kA (when subjected to an 8x20µs waveform)
- UL 497 listed
- Connector: Terminal Strip

Provide a video interface panel inside the cabinet to terminate the cables that run between the camera control cabinet and the camera assembly. Provide connectors with a screw type locking mechanism for the secure connection of the cables.

Include for each Camera Control Cabinet a Radio Frequency Interference (RFI) filter and an AC power transient surge suppressor that meet NEMA TS-2 transient protection requirements.

- c. See **15. Equipment Cabinets** for cabinet specifications.

Fiber Optic Distribution Panel – As required if fiber optic cable is proposed: Furnish a fiber optic distribution panel for the full cable termination and optical continuation of fiber optic cables as required. The unit shall act as an interface between the fiber optic cable and the fiber optic patch cables located within the cabinet. The panel is configured in connector fields consisting of rack mounted bulkhead connectors. The field shall contain a sufficient quantity of connectors to accommodate the maximum number of the fibers entering the equipment cabinet. Each connector comes pre-connected with 12 single mode LC adapters. The panel shall have the capability to store the slack cable. Provide patch cables as required.

If the CCTV Cabinet houses vehicle detection equipment or other CCTV equipment requiring network switching, Provide POE (Power over Ethernet) capable Managed Network Switch in accordance with Section 1201.2(b). Provide managed switch with a minimum of two Gigabit-Ethernet SFP ports capable of accepting optical or copper transceivers. Provide optical SFP transceivers that accept LC Connectors.

Provide TVSS (Transient Voltage Surge Suppression) for all copper cabling entering/exiting the cabinet in accordance with Section 1201.2(b).

- d. NTCIP. To ensure compatibility and interchangeability with equipment furnished in previous and future contracts, the CCTV Camera Assembly shall be compliant with the latest version of the NTCIP 1201 and 1205 Standards where applicable, as defined by AASHTO, ITE, and NEMA.

Construction

- d. General. Construct the CCTV System in accordance with all requirements of the manufacturer, all applicable codes, regulations and Standards.

Furnish all necessary materials such as cables, connectors, splicing kits, and other appurtenances as required by the manufacturer and the Commission for a complete installation of the system.

Install CCTV camera system elements as indicated and as recommended by manufacturer to provide fully functional CCTV system.

Obtain the services of a site representative/technical advisor from the manufacturer to assist in the construction, set up, turn-on and testing of the completed installation. The system must be IP-addressable. Coordinate with the Commission for all required configuration settings including IP addresses and firmware versions. Once construction and initial testing is completed, contact the Representative to arrange for connection to the Commission's Genetec system.

- e. Camera Assembly. Mount the dome camera housing as recommended by dome manufacturer. Use weather and corrosion resistant hardware to withstand a wind load of 100 mph and with a 30 percent gust factor using a 1.65 safety factor. Install and setup all elements of camera assembly prior to field installation.

Provide any necessary hardware and/or software to enable operator to change camera set-up parameters.

Set up the preset views and electronic limit stops for each camera as directed by the Representative. Submit a list of the proposed preset views and their proposed titles for review and approval.

- f. Camera Control Cabinet. Install a camera control cabinet in the method proposed.

Fasten all internal components securely to the enclosure using explicit mechanical means such as clamps, bolt/nut sets and screws.

Use an insulated grounding bushing on the end of the conduits inside the cabinet to prevent chaffing of the cables. Bond all conduits to the grounding system with a #4 AWG ground conductor.

15. Equipment Cabinets

Description – Equipment Cabinets for vehicle detection subsystem equipment and CCTV mounted to existing facilities and their related communication equipment.

Material

- a. Equipment cabinets shall be ground, wall, or pedestal mounted. A Consolidated control cabinet may be use to service multiple cameras and vehicle detection equipment.

Provide all cabinets meeting or exceeding the requirements of a NEMA 3R rating. Provide cabinet and doors fabricated from 0.125-inch minimum thickness of 5052-H32 sheet aluminum and adequately reinforced.

Provide continuous seams, solid welds made by the Heliarc welding method.

Provide neatly formed welds, free from cracks, blowholes, and other irregularities.

Provide cabinet roof, which is pitched away from the door, to prevent water from collecting on the top of the cabinet. Provide a drip shield, which is incorporated into the construction of the roof to protect the door from run-off water.

Provide a cabinet, of adequate dimensions to house all proposed equipment.

Meet minimum clearances (as specified by the manufacturer and approved by the Representative) of all components, and do not exceed all minimum bending radius for cables as specified by the manufacturer and approved by the Representative, including a 15-inch high space between the bottom of the equipment mounted at the lowest level on the rack and the bottom of the cabinet.

Provide vented cabinet. Provide cabinet, which has provisions for mounting a forced air fan system that is thermostatically controlled with air exhausted through the cabinet ventilation system. Provide replaceable HEPA air filter.

Locate and Install cabinets with consideration to safety of maintenance personnel. Furnish door handles, which provide for positive latching of the door at three points as viewed when facing the door -top, bottom, and left side.

Provide door hinged along the right side. Provide hinges and pins made of stainless-steel conforming to ASTM A276. Provide one continuous hinge mechanism along the entire right side. Provide doors equipped with an adjustable doorstop to hold the door open at the angles of 90 degrees, 135 degrees, and 180 degrees with the front of the cabinet.

Provide all cabinets with a hasp locking mechanism which provides a means to secure the door and handle in the closed / locked position. The Contractor shall be responsible for providing temporary locks until the project is accepted at which time the Commission will provide padlocks.

Provide gaskets, which are permanently bonded to the metal on all door openings. Cover the mating surface of the gaskets with a silicone lubricant to prevent sticking to the mating surface.

Equip the inside door with a document pocket capable of holding 11-inch x 14-inch documents. Provide all necessary cables in accordance with applicable sections and as recommended by the manufacturer.

Provide a cabinet equipped with adjustable shelves, including a pullout shelf capable of holding a minimum 20 lb. to support a laptop computer. Provide shelves to mount equipment as needed, including communications and power equipment. Do not stack equipment on top of other equipment. Equipment may be set on shelves installed on shelves or attached to panels mounted to the rear or side walls of the enclosure.

Electric Distribution Panel - Power all cabinet accessories from a power distribution panel to be furnished and installed as an integral part of the cabinet.

Install Electrical Distribution Panel in a manner that all cabinet electronics can be easily accessed and in accordance with the National Electrical Code clearance requirements.

Provide a power distribution panel, which has the following ratings:

- 120/240 Volt
- Single Phase
- Three Wire
- 10KAIC (Symmetrical)
- 40 Amp Main Lugs
- 4 Single Pole Circuit Breaker Capacity
- NEMA 1 Enclosure
- Isolated Neutral Bus
- Ground Bus

Provide power distribution panel containing the following circuit breakers. Provide single phase, 120-Volt Rated, 10 KAIC (Symmetrical) circuit breakers of the quantity and current capacity.

Neutral bus - Provide a neutral bus of solid metallic strip rigidly mounted on the power panel and isolated from cabinet ground. Provide all neutral conductors terminated on the neutral bus.

Ground bus - Bond the camera control cabinet, the main disconnect, the power distribution panel, the service ground wire and the branch circuit ground wires to the ground bus. Furnish and install a 3/4 inch by 10-foot copper clad steel ground rod at the camera control cabinet location. Bond the ground bus to the ground rod with AWG #4 Ground Wire using an exothermic weld. Drive the ground rod 18" below final grade.

Cabinet Light - Furnish and install in the camera control cabinet, one 20-watt, commercially available, commercial grade, fluorescent lamp and lamp assembly. Provide a U.L.-listed assembly. Provide a lamp, which is automatically turned on when the cabinet door is opened, and automatically turned off when the door is shut. Provide a lamp assembly positioned so as to provide light to all of the equipment within the cabinet. Provide a lamp assembly, which is shielded so as not to shine directly in the eyes of servicing personnel.

Convenience Outlet - Furnish and install one duplex, NEMA 5-15R, GFCI receptacle with box and cover plate in an accessible location when all equipment is installed within the camera control cabinet. Furnish U.L.-listed receptacle meeting Federal Spec. # WC596.

Fan - Furnish and install heavy duty cooling fan in the cabinet. Equip the cabinet with a 100 CFM, 0.18 amp at 120 VAC, cooling fan. Furnish a thermostatically controlled fan equipped with a fan guard.

Each cabinet shall contain a Network Power Controller (NPC) capable of removing and reapplying power to the protected circuit within that cabinet. The protected circuit is to cover all sensitive cabinet electronics. Communications to activate the remote reset shall be consistent with the primary communication used to return video or data back to the TOC. The NPC shall include the following features:

- RJ-45 Ethernet connector providing 10baseT or greater connectivity
- Power required: 9-28 volts DC, less than 3 watts at 100 mbps with all 4 switching channels activated
- Temperature range -4 to +158 deg F
- Capable of switching at least 15 Amps AC at each of 4 separate switching channels
- For each switching channel, capable of command switch on, command switch off, pulse with specified duration ranging from .1 to 86,400 seconds with 99.99% accuracy
- Uses standard TCP/IP communications protocol with Static IP address capability
- Available IP port range from 1 to 65535
- Built-in password protected web page for remote control, remote status and remote configuration via a web browser
- Machine to machine HTTP API and TCP/IP Modbus for remote status and operation
- External reset button

16. Cellular Communications

The Commission will provide the contractor with pre-configured cellular communication equipment. The number of cellular gateways required shall be communicated to the Commission at the start of the project to allow for adequate time to procure and configure the devices. The Selected Proposer shall minimize the number of cellular connections by collocating equipment to the extent practical. Collocate the cellular equipment within an equipment cabinet housing other system equipment.

17. Vehicle Detection Equipment

The selection of vehicle detection equipment to be used to collect truck parking data is the Proposer's responsibility. The device or devices selected must be hardened for the PTC's physical environment and must be a device that is intended for this use by the manufacturer. Proposers shall select devices that require minimal maintenance, are modular in construction (as applicable).

18. Local Wireless Communication

If local wireless communication (e.g. point to point radio) is utilized at the Service Plazas to communicate between detection equipment and its controller equipment, this communication network must be secured and shall be completely insulated from any connection to the cellular network/PTC network connections.

19. Static/Digital Hybrid Message Sign

Design and construct the static sign in accordance with ITS-1230. Provide a digital display inset capable of displaying up to three (3), twelve-inch (12”) characters. The insets controller shall be NTCIP compliant and meet applicable industry standards and manufactured solely for this intended roadside use.

The Digital Display (DD) and Controller shall meet the following requirements:

a. General Requirements

- The DD shall be compatible with and utilize the existing Commission ATMS software.
- The DD shall be Full Matrix, Amber Color, LED-based.
- The DD shall be manufactured from an ISO-9001 certified facility.
- The DD shall be comprised of multiple pixel-based modules, containing color LED technology, arranged to form a full matrix display.
- The DD shall be capable of displaying, at a minimum, one (1) row of three (3) characters, with a nominal character height of 12-inches and a pixel pitch between 0.79 to 0.81 inches.

b. LED Requirements

- The LEDs that make up the display modules shall be high luminous intensity T-1 ¾” type manufactured by a reputable manufacturer such as Avago Technologies (formerly Agilent Technologies), Nichia Corporation, OSRAM, CREE or EOI.
- The LEDs shall have an ultraviolet light inhibitor in the epoxy dome package and be of a production type already tested for use in high vibration commercial traffic environments and climate of the northeastern United States.
- All LEDs shall have a nominal viewing cone of 30 degrees with a half-power angle of 15 degrees measured from the longitudinal axis of the LED.
- The LEDs shall be rated by the LED manufacturer to have a minimum lifetime of 1000,000 hours of continuous operation while maintaining a minimum of 70% of the original brightness.

c. LED Display Module Requirements

- The LED display modules shall have a minimum refresh rate of 60 times per second to prevent visible flicker.
- The LEDs shall be grouped in pixels consisting of discrete LEDs arranged in a continuous matrix display with individual pixel addressability.
- The center of all pixels shall be arranged so as to maintain the same horizontal and vertical spacing between adjacent pixels.
- The failure of any one pixel shall not affect the operation of any other pixel.
- Each LED display module shall have a diagnostic capability to detect a failure on the LED display module, down to the pixel level and report the failure to the DD controller.
- The 12” character of the DD shall be clearly visible and legible from in-vehicle viewing distance of 600 feet from the DD face under clear daylight and nighttime conditions with the DD face positioned in the roadway line of sight.

d. Dimming Circuitry Requirements

- The DD shall have a photocell controlled dimming circuit which shall automatically adjust the luminance of the LED display pixels in accordance with ambient light conditions.
- For luminance levels less than maximum brightness, either continuous current drive or current pulse width modulation shall be used to dim the LEDs.
- The Dimming circuitry shall have built in protections to prevent damage to the LED's.

e. Power Supply

- The DD shall operate at a low internal DC voltage not exceeding 24 Volts.
- Power Supply failure shall be automatically reported by the DD controller when polled by the ATMS.
- The power supply shall be protected by a suitable overcurrent protection device.
- The power supply shall be UL listed.
- The operating temperature of the power supply shall be negative 20 degrees Fahrenheit to 14 degrees Fahrenheit.

f. Digital Display Enclosure

- The DD enclosure shall have a weatherproof housing and all internal components shall be non-condensing and withstand a humidity range of 0 to 99%, non-condensing.
- The DD enclosure shall be constructed of corrosion resistant aluminum material.
- Sheet aluminum shall be fabricated from aluminum alloy sheet meeting the requirements of ASTM B 209, Alloy 5052, Temper H3, or equivalent, minimum of 0.125 inch thick.
- Cast aluminum shall be fabricated from aluminum alloy meeting the requirements of ASTM B 686, Alloy A356 (A 13560) or equivalent.
- All DD enclosures shall meet the requirements for Type 3R enclosures according to NEMA Standard Publication 250, as well as those of PennDOT Publication 408/2016-5, Section 1230 and Publication 647.
- All nuts and bolts used in the DD assembly shall be stainless steel.
- All adjacent dissimilar materials shall be isolated, as approved by the Commission.
- The interior of the DD face window and the LEDs shall be easily accessible for cleaning and other maintenance.
- The DD shall be front access.
- All serviceable components shall be modular, interchangeable and removeable from within the DD enclosure.
- All holes shall be screened to prevent small objects, insects and creatures from entering into the enclosure.

g. Ventilation Requirements

- Any heating, cooling, and/or dehumidifying equipment shall be sized to maintain the internal DD and controller enclosure temperature within the operating ranges of the electric, electronic and mechanical equipment components.
- The environmental equipment shall have controls that protect the equipment components by shutting down operation if maximum operating temperatures are reached and restore operation when the temperature has returned to safe operating levels.

- The DD controller shall report ventilation system failures and any shutdowns due to environmental extremes.
 - Vent free design shall ensure that the DD enclosure interior temperature does not exceed the maximum range of the DD components to ensure continued operation without failure or degradation, particularly during full daylight heat gain.
- h. Digital Display Control Requirements
- The DD controller shall be a microprocessor-based unit with sufficient on-board memory and input and output interfaces to provide all the functions required by these specifications.
 - The DD controller shall accommodate both local and remote control from multiple host devices.
 - Local control shall be supported from a locally connected sign programmer.
 - Remote control shall be supported from the PTC's ATMS software (IBI ATMS).
 - The DD controller shall receive and interpret commands sent by the host device to either configure the DD or cause a requested message to be displayed on the DD.
 - The DD controller shall provide return data to the host device, based on the command, to provide information about the status of the sign.
 - The communication between the DD controller and ATMS shall be direct via NTCIP data protocol.
 - The DD controller shall detect errors and failures and report them via communication with the ATMS.
 - The DD controller shall have diagnostic capabilities to perform redundant checking of all data received and transmitted, and incorporate cyclic redundancy check error detection logic, as specified by the NTCIP standards.
 - Diagnostics features shall include:
 - Validate the content of all received transmissions.
 - Check and report logic or data errors.
 - Monitor status for communication line malfunction or break.
 - Respond to system polling from the ATMS.
 - Check and report errors in the display driver operation.
 - Check and report the failure and location of bad pixels.
 - Check and report the failure of bad fans.
 - Check and report whether the controller cabinet or DD enclosure door is open or closed.
 - Check the operation and report the failure and location of bad power supplies.
 - Check the duration of power failures.
 - The DD controller shall blank the DD and include the error of failure in the return message if it is detected that the number of pixels that are not working for the particular sign type exceed a specified maximum value.
 - The current message displayed on the DD just prior to a power failure shall be retained in memory upon detection of a power failure to the DD controller or the DD display connected to the controller.

- The DD shall remain blank upon power restoration if the duration of the power failure exceeded the configurable long-term power failure duration threshold (default 10 minutes), else the previous message shall be restored to its respective DD.
 - The DD controller shall have a clearly labeled on/off switch.
 - The DD controller shall be provided with all software and hardware required for:
 - password protection to restrict access to control and configuration functions. See **Appendix E – Commission Security Requirements** for more information.
 - real-time clock and calendar for timing and scheduling of automatic functions. The calendar shall automatically adjust itself for leap years, and for changeover from standard to daylight savings time and back.
 - Communications loss message threshold, to specify how long the current message should remain displayed in the absence of communications with the ATMS.
 - Control of pixel luminance levels, both directly and based on ambient light levels obtained from the photocells.
 - Monitoring of each pixel of the DD.
 - Monitoring of power failures.
 - The hardware watchdog timer.
 - Programmable font sets.
 - The DD controller shall keep a log of all system errors, and malfunctions, automatic operations and locally controlled commands and activities. All logs shall be time and date stamped.
 - The DD controller shall have sufficient memory to store a minimum of 500 log entries. If 100% of the log storage memory has been reached without a successful download to a central processor (ATMS) or sign programmer, the oldest log entry shall be overwritten.
 - The DD controller shall upload all log entries to a Central Processor (ATMS) or Sign programmer, upon user request from one of these devices and clear the log.
- i. Controller Cabinet Requirements
- The controller cabinet shall be ground mounted.
 - The controller cabinet shall protect all internal components from rain, ice, dust and corrosion in accordance with NEMA 3R standards, as described in NEMA Standards Publication 250 and be made of aluminum (0.125-inch thick).
 - The controller cabinet must conform to the latest versions of PennDOT Publications 647 and 408, 2016-5, Section 1230.
 - The controller cabinet shall include:
 - a full-height standard EIA 19-inch rack.
 - the main power supply and energy distribution system (main disconnect).
 - at least one 15A, 120 VAC GFCI protected duplex service outlet.
 - lightning protection and terminations for the communication and control cables.
 - termination blocks for the control cables to and from the DD sign housing.
 - permanently mounted, weather-resistant document holder.
 - Electrical drawings printed on water/tear-resistant material.
 - A pullout shelf.
 - An open door alarm that reports to the DD controller.

- Surge protection on all incoming power lines meeting the following minimum specifications:
 - Maximum Clamp Voltage – 340V
 - Peak Current – 20,000 Amps
 - Response Time – 5 nanoseconds
 - Occurrences – 20 times at peak current
 - Minimum Series Inductance – 200 microhenries
 - The controller cabinet must provide a minimum of 6 Rus for communication equipment installation in order to facilitate the potential future installation of communication system components.
 - The controller cabinet shall provide a minimum of one 120 VAC outlet capable of providing 105W of power to the DC power supply.
- j. Communications Requirements
- The controller cabinet shall provide layout space for a cellular modem and antenna, and /or ethernet network switches.
 - The controller shall have a minimum of two (2) serial data and one (1) Ethernet communications ports to facilitate simultaneous communications for local and remote control, programming, and diagnostics.
 - The DD shall automatically use the NTCIP communications stack associated with serial communications (i.e., NTCIP 2101, NTCIP 2201, and NTCIP 2301) when connected to the serial port.
 - The DD shall automatically use the NTCIP communications stack associated with Ethernet communications (i.e., NTCIP 2104, NTCIP 2202, and NTCIP 2301) when connected to the Ethernet port.
 - All pots shall be configured such that communications with serial ports shall support all typical serial baud rates ranging from 1200 to 115,200 baud.
 - All ports shall be configured such that communications with the Ethernet port shall be capable of communicating via TCP/IP or UDP/IP at 10 or 100 MB.
 - The serial ports in the DD controller shall be protected with surge protection to protect the modem communication port from over-voltage and overcurrent conditions between each signal line and ground.
- k. NTCIP Requirements
- The DD and associated control equipment shall complete with:
 - The latest versions of the National Transportation Communication for ITS Protocol (NTCIP) Standards
 - NTCIP 1101:1996 (v01.12, December 2001) Simple Transportation Management Framework
 - NTCIP 1103 (v03, December 2016) – Transportation Management Protocol (TMP)
 - NTCIP 1201 (v03, March 2011) – Global Objects (GO) Definitions
 - NTCIP 1203 (v03, September 2014) – Object Definitions for Dynamic Message Signs (DMS)

- NTCIP 2101:2001 (v01.19, November 26, 2001) – Point to Multi-Point Protocol Using RS-232 Subnetwork Profile.
- NTCIP 2103 (v02, December 2008) – Point-to-Point Protocol over RS-232 Subnetwork Profile.
- NTCIP 2104:2003 (v01.11, September 2005) – Ethernet Subnetwork Profile.
- NTCIP 2201:2003 (v01.15, September 2005) – Transportation Transport Profile.
- NTCIP 2202:2001 (v01.05, December 2001) – Internet (TC/IP and UDP/IP) Transport Profile.
- NTCIP 2301 (v02.19s, October 2010) – Simple Transportation Management Framework (STMF) Application Profile (AP) (AP-STMF)

K. WARRANTIES AND GUARANTEES

Description - Guarantee the equipment services, software and hardware provided under this Contract until the end of the contract period. Submit all equipment and material guarantees or warranties supplied by equipment manufacturer or supplier to the Commission in writing. Guarantees and warranties shall be extended by the Selected Proposer to the end of all contract extensions.

Software License, Warranty, Support, and Upgrades

1. The Commission's Rights

The Proposer and its subcontractors shall grant the Commission intellectual property rights to unlimited copies of any software/firmware, if any, acquired or created for use at any site or facility operated by the Commission. The Commission shall have the right to duplicate any Documentation associated with the software/firmware for use of its employees or agents. If the TPMS make use of software packages purchased from a Third Party, the Proposer will provide the Commission enough licensed copies of that standard software package to properly implement the systems for this project. The Proposer will coordinate with the Commission on the final number of software licenses required.

2. Warranty

Fully guarantee all Software/Firmware, and items, or materials created by, or manufactured by the Proposer, and provided under this Contract, to be FREE FROM DEFECTS (insofar as known) at the time of acceptance. For third-party suppliers, furnish the Commission those warranties offered as normal trade practice by those suppliers.

Through the end of the contract term, the Proposer will provide promptly, within one (1) month after made available by the manufacturer, any amendments or alterations to the software/firmware that may be required to correct errors present at the time of acceptance, which affect performance, in accordance with these Specifications. Any alterations shall be performed with a system configuration management process, which will first be approved by the Commission.

3. Upgrades

Through the end of the contract term, the Proposer will notify the Commission of upgrades, enhancements, or special features developed for these systems. The Proposer will provide upgrades and enhancements to the software that will improve the operating performance of the systems, but do not change the basic functions of the systems. These upgrades and enhancements shall be provided to the Commission at no charge. After this term it shall be the sole responsibility of the Commission for requesting available upgrades, enhancements, or special features developed for these systems.

4. Level of Service

The LOS of the Warranty is equivalent to FHWA/McTrans LOS 1, "Full Technical and Maintenance Support". Provide the following:

- Immediate (same-day) notification via email and telephone of any serious "defect/bug" discovered in a supported, maintained program.
- Free replacements of programs, program modules, firmware, and documentation, which are updated to correct "defects/bugs". This is the implementation of the Warranty.
- Full telephone, email and FAX, question and answer user support during normal business hours.
- Send two (2) copies of each replacement /enhancement /upgrade /version/documentation via overnight express carrier delivery. The Proposer has the right to market or sell the software/firmware developed for the Commission to other vendors, agencies, or highway departments. In return, during the period of Warranty, the Proposer shall provide the Commission free of cost, those new versions of the software/firmware that may be developed as enhancements or modifications to meet the requirements of other highway departments

L. PROPOSER RESPONSIBILITIES

General - It is the sole responsibility of the Proposer to provide the Commission with the design, procurement, installation and integration of fully functional TPMS, digital/static hybrid signs, CCTV, power and communications systems, to the approval of the Commission. The Proposers final bid price for this contract, will not be altered unless additional work is mutually agreed upon between both the Commission and the Proposer.

- The Proposer shall maintain all equipment procured under this Contract in proper working and fully operational condition throughout the period of construction, system acceptance testing and the successful completion of the 60-Day operational test period, as determined by the Commission. Proper working and operational conditions mean that all field equipment, all hardware, and software meet the contract specifications, the intent of the project, and the manufacturer's specifications functions. All field and TOC equipment must be installed and all equipment must have successfully completed Stand Alone Testing (SAT) before the 60-day Operational Acceptance Test (OAT) period can commence. The Commission will provide the Proposer with written or oral approval to begin OAT testing.

The Commission is not responsible for any delays or penalties incurred by the Proposer due to incomplete testing, or failure to provide a satisfactory system, prior to the start of the OAT testing.

For equipment malfunctions, respond to and repair within the applicable time frame as specified in **Appendix R – Service Level Agreement**. If the equipment is damaged or rendered inoperable due to external reasons including, but not limited to, vehicular accidents on the roadway, rainstorm, snowstorm, or other natural disasters, restore to proper operating conditions within the applicable time frame as specified in **Appendix R – Service Level Agreement**. If such damage occurs after the start of the 60-Day operational test and before the guaranty period, the Proposer shall be reimbursed for the repair in accordance with the Commission’s Publication 408, Section 110.03.



Truck Parking Management System System Requirements

FINAL

August 24, 2018

Revised March 14, 2019

Prepared by:  **McMAHON**
TRANSPORTATION ENGINEERS & PLANNERS



1 Introduction

A 2013 draft study, “Pennsylvania Turnpike Mainline Truck Parking Study,” investigated and quantified the existing truck parking shortfall on the PA Turnpike. It identified that a shortfall of 890 spaces existed, and that the shortfall was expected to grow to 1,150 spaces within a ten-year period. The lack of truck parking availability along the PA Turnpike corridor has contributed to illegal parking which creates unsafe conditions. This lack of truck parking availability is an issue that expands beyond the PA Turnpike; these problems are seen throughout Pennsylvania and across the country. A separate 2016 study conducted by the PA Turnpike, “Systemwide Truck Parking Improvement Study,” built upon the aforementioned 2013 study and resulted in recommendations to expand truck parking capacity along the Turnpike mainline and Northeast Extension. Additionally, pursuit of ITS applications was recommended to assist truckers to locate available parking as well as maximize the use of existing capacity. The study identified \$2.1 million of Federal Highway Administration funding originally awarded to PennDOT for a Rest Area Parking Information Delivery System (RAPIDS) project. This funding has since been secured by the PTC and will be utilized to finance the initial deployment of the PTC TPMS.

The Pennsylvania Turnpike Commission (PTC) has developed a Concept of Operations (ConOps) for a regional Truck Parking Management System (TPMS). The ConOps provides a high-level understanding of a proposed system to disseminate real-time truck parking availability information collect from parking facilities across the Turnpike mainline. This system is intended to help alleviate the truck parking issues experienced across the system.

In order to successfully procure a TPMS, detailed system requirements must be identified to ensure that the system’s functionality and performance meet the needs of the Commission. This document defines the PTC’s system requirements.

2 Purpose

The purpose of this document is to identify the user needs and describe in detail the system requirements of the overall TPMS. The system requirements define the requirements for the operation of field devices, control system, and external interfaces and feeds. These requirements will be included in the Request for Proposal (RFP) to define the functional requirements and contractor responsibilities to prospective proposers. Each proposer’s system will be required to meet these requirements. Their ability to meet these requirements will be heavily weighted in the consideration to select the successful proposer. These system requirements have been developed based on the ConOps document.

The system requirements are separated in to the following categories:

Acronym	Name
GEN	General System Requirements
DC	Data Collection Requirements
SOFT	Software Requirements
OPS	Operational Requirements
MNT	Maintenance Requirements
INF	Information Dissemination Requirements

The following pages include the identified user needs and all of the system requirements developed for the TPMS. Additional testing, acceptance, warranty, maintenance, service, and other contractual requirements will be developed as part of the RFP development process.

3 User Needs

The following table lists the user needs identified in the ConOps document.

User Needs	
A	Deploy a cost-effective solution with minimal operation/maintenance requirements.
B	Deploy a system that is scalable.
C	Maximize understanding and acceptance of the TPMS through a communications plan.
D	Collect data for performance measurement, operations analysis, and evaluation for future expansion.
E	Collect and provide timely, reliable, and accurate parking availability information to efficiently locate parking.
F	Deploy a system that provides flexibility in operation based on condition (e.g. weather or incident vs. normal conditions).
G	Deploy a system that is capable of using Connected Vehicle technologies.
H	Deploy a system that is capable of utilizing historical data to provide predictive parking information.
I	Provide truck parking information through multiple dissemination methods.
J	Provide information in a way that meets federal safety guidelines for commercial drivers.
K	Improve personal safety and security for commercial drivers.
L	Reduce fatigue-related truck crashes in deployed corridors.
M	Reduce illicit parking in unmarked areas (Ramps, shoulders, wide areas, etc.)

4 TPMS System Requirements

ID	Functional Requirement Definition
GEN-1	The TPMS shall be scalable and expandable.
GEN-2	The TPMS shall be an internet browser based Graphical User Interface.
GEN-3	The TPMS shall be hosted in the cloud and accessible by PTC personnel.
GEN-4	The TPMS shall be capable of utilizing any vehicle detection technology or combination of technologies to collect truck parking data including but not limited to in-ground detectors (microwave/magnetometer/infrared), non-intrusive detection (traditional video, thermal video, laser, microwave radar, CV technologies).
GEN-5	CCTV cameras shall be installed at each service plaza for the primary use of system validation. The CCTV cameras shall communicate via cellular technology (or other PTC approved means) and be integrated into the PTC's video management software.
GEN-6	All installed roadside equipment cabinets shall be provisioned to install/deploy future connected vehicle communication hardware.
DC-1	The TPMS shall have the ability to utilize per space occupancy and in/out counting methods.
DC-2	Traffic sensing equipment shall be deployed to reliably determine parking availability at the identified PTC service plazas.
DC-3	The TPMS shall collect parking data from detection systems at the identified PTC service plazas.
DC-4	Data collection technology shall protect user privacy.
DC-5	The TPMS shall communicate with NTCIP compliant detection devices.
SOFT-1	The TPMS software shall have the ability to monitor and manage an unlimited number of parking lots and unlimited parking spaces in each lot.
SOFT-2	The TPMS software shall manage all metadata for each parking lot in the system. (e.g. restaurants, ATM's, and other amenities)
SOFT-3	The TPMS software shall allow users to update metadata for each location.
SOFT-4	The TPMS software shall integrate with the PTC's ATMS for posting truck parking information on message signs (DMS or Static/Digital Hybrid Signs).
SOFT-5	The TPMS software shall integrate with the PTC's ATMS for passing truck parking information to existing PTC systems (PTC website, PA511, TripTalk, etc.)
SOFT-6	The TPMS software shall provide a truck parking information public data feed in the standardized MAASTO format.
SOFT-7	The TPMS software shall report device status/failures/errors to software users and report device status to external systems (e.g. ATMS and/or Service Now)
SOFT-8	The TPMS software shall collect and store all parking data, system operational actions, user actions (e.g. manual changing a count for calibration), detector status history, etc. for the purpose of generating reports for performance measurement, operations analysis, and evaluation for future expansion.
SOFT-9	The TPMS software shall process the raw parking data to calculate the parking availability at each site at least every five minutes.
SOFT-10	The TPMS software shall determine the trend (emptying, steady, filling) for parking availability at each site.
SOFT-11	The TPMS shall provide public data feeds available to third-parties and other states that provide parking availability data and parking site metadata per the MAASTO TPIMS data feed format.
SOFT-12	The TPMS software shall store, analyse, and utilize historical parking data to be capable of providing predictive parking information to be disseminated through the system outlets.

ID	Functional Requirement Definition
OPS-1	The TPMS shall be capable of automatically turning on/off dissemination of each lot's parking information if errors/failures are detected (individual devices, site communication failures, etc.) that result in inaccurate counts.
OPS-2	Parking availability data that has not been refreshed in 15 minutes or more shall be considered "stale" data. The TPMS shall automatically pause dissemination of this data until data is refreshed. A place holder (blank or "N/A") shall be displayed on messaging outlets until consistent data refresh rates are restored.
OPS-3	The TPMS shall allow users to manually turn on/off dissemination of individual lot's parking information.
OPS-4	The TPMS shall allow users to change the outputted messages for lots that have been turned off. E.g. "CLOSED", blank, "LOW", "FULL", etc.
OPS-5	<p>The TPMS shall maintain an accuracy rate above 85% for sites with less than 15 spaces, and 90% at sites with 15 or more spaces.</p> <p>At any given time, for any given individual lot:</p> $\text{Accuracy Rate} = 100\% \pm \frac{\text{Current Observed Truck Count} - \text{Current System Truck Count}}{\text{Current Observed Truck Count}}$
OPS-6	CCTV cameras installed at TPMS sites shall be used by PTC personnel to validate space availability calculated by the system and reset the availability data as needed.
OPS-7	The detection system at TPMS sites will communicate through the cellular communication equipment provided by the Commission. Detection system data traffic will be routed by the Commission to the internet for TPMS SaaS use.
OPS-8	The CCTV cameras and associated communication equipment will be operated by the PTC for the entirety of the contract period.
OPS-9	If communication is lost between the detection system and the TPMS, all data collected during the period of lost communication will be sent to the TPMS when communication is restored.
OPS-10	Any combination of detection technology and operational practices shall minimize propagation of counting errors.
OPS-11	The system shall provide remote monitoring, configuration, and diagnosis to accommodate operation by the PTC and maintenance by the Contractor.
OPS-12	<p>The TPMS software shall allow a user to:</p> <ul style="list-style-type: none"> • Add new lots and detectors to the system • Set up lot counting as per space or in/out counting • Modify a parking lot's capacity • Modify system lot capacity/availability thresholds for roadside sign display messaging and alerts.
OPS-13	The TPMS shall be capable of disseminating predictive parking information to travellers through the system outlets.
OPS-14	TPMS user shall have the capability to select whether predictive or current parking availability information is posted to each roadside sign.
MNT-1	The detection system at TPMS sites will be maintained by the contractor for the entirety of the contract maintenance period.
MNT-2	The CCTV cameras and associated communication equipment will be maintained by the PTC for the entirety of the contract maintenance period.
MNT-3	The TPMS shall provide remote monitoring, configuration, and diagnosis to accommodate maintenance.

ID	Functional Requirement Definition
MNT-4	All device maintenance responsibilities shall be handed over to the PTC at the end of the contract period.
MNT-5	The contractor shall provide, maintain, and support the TPMS software as a SaaS (Software as a Service) for the entire contract period.
MNT-6	The PTC will maintain all digital/static hybrid signs after system acceptance.
INF-1	The vendor shall not monetize the use of TPMS collected data.
INF-2	The PTC/TPMS will share data feeds to all neighboring agencies, including PennDOT and the MAASTO TPIMS Partnership.
INF-3	The PTC/TPMS will provide en-route parking availability information to commercial vehicles within 30 miles upstream of service plazas using DMS or Static/Digital Hybrid Signs.
INF-4	Parking availability information shall be disseminated to mobile devices via websites and apps developed by private third-parties.
INF-5	Service plaza closure information shall be disseminated by the PTC using all communication methods including the TPMS.

5 Traceability Matrix

System Requirements	User Needs												
	A	B	C	D	E	F	G	H	I	J	K	L	M
GEN-1	X	X											
GEN-2		X											
GEN-3	X	X											
GEN-4	X	X			X		X						
GEN-5					X								
GEN-6							X						
DC-1		X			X								
DC-2					X								
DC-3					X								
DC-4			X										
DC-5					X								
SOFT-1		X			X								
SOFT-2			X		X								
SOFT-3			X		X								
SOFT-4			X		X				X	X			
SOFT-5			X		X				X	X			
SOFT-6			X		X				X	X			
SOFT-7				X									
SOFT-8				X				X					
SOFT-9					X								
SOFT-10					X			X					
SOFT-11			X		X				X	X			
SOFT-12								X					
OPS-1			X			X							
OPS-2					X	X							
OPS-3			X			X							
OPS-4					X	X							
OPS-5				X	X								
OPS-6				X	X	X							
OPS-7	X												
OPS-8	X												
OPS-9				X	X	X							
OPS-10					X								
OPS-11	X												
OPS-12						X							

System Requirements	User Needs												
	A	B	C	D	E	F	G	H	I	J	K	L	M
OPS-13								X					
OPS-14								X					
MNT-1	X												
MNT-2	X												
MNT-3	X												
MNT-4	X												
MNT-5	X												
MNT-6	X												
INF-1			X						X	X	X	X	X
INF-2			X		X				X	X	X	X	X
INF-3			X		X				X	X	X	X	X
INF-4			X		X				X	X	X	X	X
INF-5			X		X				X	X	X	X	X

APPENDIX R

SERVICE LEVEL AGREEMENT

Appendix R **Service Level Agreement**

The COMMISSION expects that the CONTRACTOR will demonstrate a high level of service and quality control standards. The CONTRACTOR is required to maintain high quality standards and provide quality assurance in order to meet or exceed the service levels outlined below. In addition, the CONTRACTOR shall take timely and appropriate action in response to resources that are not performing to the COMMISSION expectations.

The COMMISSION has developed a base Service Level Agreement (SLA) that is set forth herein for the purpose of measuring CONTRACTOR performance throughout the life of the Contract, and any renewals. The SLA will go into effect on system acceptance of the Truck Parking Management System and coincide with the Performance Period.

A monthly performance report will be submitted by the CONTRACTOR beginning after system acceptance. Monthly performance reports will be reviewed to enable the COMMISSION to evaluate the CONTRACTOR on a variety of performance criteria, including, but not limited to, the SLA established. If any service deficiencies are identified across the entire contract, the CONTRACTOR and the COMMISSION representatives will determine a corrective action plan to ensure that the level of service improves. Failure to correct service deficiencies may be considered an event of default. The COMMISSION reserves the right to hold monthly review meetings to review the CONTRACTOR'S level of service and discuss improvements to the SLA described below.

As a part of process improvement, throughout the life of the contract, improvement to existing SLA's and/or additional SLA's are to be presented at the monthly review meeting. The COMMISSION recommends that the CONTRACTOR utilize survey tools to periodically gather customer satisfaction feedback from a randomly selected group of the COMMISSION users who utilize the CONTRACTOR service desk. Changes and/or additions to SLA's resulting from the process improvement efforts will be agreed upon by the CONTRACTOR and the COMMISSION.

(a) Reporting

The CONTRACTOR shall provide all performance reports, delivered to the Project Manager on or before the 5th calendar day of each month for the immediately preceding month to verify the fulfillment of the service level requirements. The CONTRACTOR shall furnish the COMMISSION with a monthly report on all service request activity and performance reporting in an electronic format agreed upon by the COMMISSION and will provide access to all the data used to generate these reports.

Credits: If any performance report is not delivered to The COMMISSION'S Project Manager on or by the 5th calendar day of each month, the CONTRACTOR shall apply credit in the amount as described below to the full monthly invoice amount for **Task H: Operational Maintenance and Support (Performance Period)**. The credit shall be applied to the monthly service invoice of the affected month.

Performance Reports	Credits (per report)
All reports received on or by the 5 th calendar day of the month	No credits applied
Any report received after the 5 th calendar day of the month	\$50 (per day)

(b) System Availability

This metric is established to track system availability from an end user’s perspective. The intent is to assure system availability at or above 99.95% for 24 hours per day, 365 days per year continuous system operation. The goal is to have minimal or no unplanned outages that impact the end users.

System availability refers to the time the system is functional, accessible and capable of meeting the contracted performance requirements. The System will be deemed unavailable if the TOC is not able to access the TPMS system or not able to operate the TPMS.

Not able to operate the system is defined as being:

- a problem with the TPMS hosted system that results in the inability to perform the functions intended and expected to be performed by an operator within the TPMS hosted software system (e.g. view parking counts, verify system status, calibrate lot counts, enable/disable lots within the system, etc.); and/or
- a problem with the TPMS hosted system that results in the loss of access to the external data feeds and/or interface with the ATMS system.

Downtime calculation shall include all downtime from start to finish. The system availability metric applies to the CONTRACTOR provided hosted system for the TPMS solution including the external data feed and interface with the ATMS system.

Downtime from Service Requests - If a Service Request is not resolved within the required resolution time, the time beyond the specified time will be added to Downtime for the month in which the Service Request was issued. Refer to the following section for details.

The CONTRACTOR will be responsible for reporting on system availability monthly. Downtime shall be calculated from the time when the COMMISSION notifies the CONTRACTOR of the unavailability to when the CONTRACTOR notifies the COMMISSION of restoration of availability and in turn, validated by the COMMISSION.

NOTE: The COMMISSION **approved** downtime due to **planned** TPMS system maintenance will not count towards total system downtime; **approved** downtime shall be counted as time the system is available.

The calculation for **Percent Uptime** shall be as follows:

$$\text{Percent Uptime} = (\text{System availability} - \text{Downtime}) / (\text{System availability}) * 100$$

- **System Availability** = number of minutes a system is fully functional and accessible base on normal hours of operation (24/365) for the reporting month.
- **Downtime** = number of minutes a system is unavailable for the reporting month (applies only to unplanned outages).

Credits: If the reported monthly system availability is below 99.95%, the CONTRACTOR shall apply credit in the amount as described below to the full monthly invoice amount for **Task H: Operational Maintenance and Support (Performance Period)**. The credit shall be applied to the monthly service invoice of the affected month.

<u>Monthly System Availability Performance</u> <u>(Effective Period - downtime in any month)</u>	<u>Credits</u>
99.95% to 100% (0 – 22 mins)	No credits applied
99.9% to 99.94% (22 mins – 44 mins)	5%
98% to 99.8% (44 mins – 14 hrs)	15%
95% to 97.9% (14 – 36 hrs)	25%
90% to 94.9% (36 – 72 hrs)	50%
75% to 89.9% (72 – 180 hrs)	75%
Less than 75% (Greater than 180 hrs)	100%

(c) Service Request Management

All service requests escalated to the CONTRACTOR for resolution shall be resolved according to the parameters established within this Section. The resolution time requirements include any required travel time.

The hours indicated in the response and resolution timeframes shall be interpreted as consecutive hours within a 24 hour period, except where specifically noted as *business* hours. Business Hours are: Monday - Friday, 8AM - 5PM. The following table explains service requests.

Credits: If any of the Service Request Response resolution time requirements are not met, the time incurred beyond the required resolution time will be added to Downtime (see section b above) and credited through the System Availability Performance requirements. In the case that a resolution time cannot be met due to extortionary circumstances (extensive damage, act of god, extreme weather conditions, etc.), the CONTRACTOR may request an extension to the resolution time through a written Resolution Plan.

Resolution Plan. The plan shall outline the reasons to why the resolution time cannot be met, describe the steps to resolution plan to be completed, and define a new resolution deadline. This plan must be agreed to and signed by a COMMISSION representative. The CONTRACTOR is required to notify the COMMISSION of their inability to meet the required resolution time prior to the expiration of the required resolution time. This notification does not guarantee that the request for extension will be granted.

All Service Requests will be made during normal business hours. The time that the service request is made to the CONTRACTOR (phone call or e-mail) by the COMMISSION will serve as the start of the time to resolution.

The following table explains the activities, performance standards and credits for **all service requests**.

Service Request Management – All Requests		
All Requests		
Request Type	Measure	Performance Requirement
<u>TPMS Software Related Service Requests:</u> Resolve any software related issues requests that are not defined as System Downtime	Time to Resolution	36 hours
<u>TPMS Field Equipment Related Service Requests:</u> Resolve any issues related to the field equipment for the vehicle detection subsystem (e.g. non-reporting detectors/controllers, detector calibration issues, field device errors, etc.)	Time to Resolution	72 hours

Note: All issues resulting in system downtime (as defined in this section) shall be addressed ASAP per System Availability Requirements.

(d) System Accuracy

Within the monthly submitted performance reports, the CONTRACTOR shall submit documentation detailing the recalibration actions taken by system users throughout the month to correct/recalibrate the system count for each of the active service plazas within the system. Organize the report to show all of the recalibrations for each active service plaza within the system for the entire report period. Show the system count at the time of the recalibration check, the observed count, and the calculated accuracy rate for that period. Summarize within the report, the average accuracy rate for the month. The monthly average accuracy rate will be calculated by averaging the accuracy rates for each recalibration check period (i.e. 2 recalibration checks per day x 30 days = 60 accuracy rate records).

If the average monthly accuracy rate for the reported month is less than the specified accuracy rate requirement greater than 15% off of the requirement (e.g. 70% or less, with a requirement of 85% or 75% or less with a requirement of 90%) then the CONTRACTOR must visit the site to adjust system to correct the problem.

If the average monthly accuracy rate for a specific lot is less than the specified accuracy rate requirement for two consecutive months, then the CONTRACTOR must visit the site to adjust the system to correct the problem.

(e) **Miscellaneous**

In the event that the Credits exceed the regular monthly charge, at the COMMISSION's discretion, the difference in amounts shall be deducted from the next monthly invoice or shall be remitted directly to the COMMISSION after the COMMISSION's invoicing.

In the event there is no applicable regular monthly charge, the amount of the credit shall be remitted directly to the COMMISSION after the COMMISSION's invoicing.

EASTER	From 5:00 A.M., local time, Friday, April 19 to 11:00 P.M., local time, Monday, April 22, 2019.
MEMORIAL DAY	From 3:00 P.M., local time, Thursday, May 23 to 11:00 P.M., local time, Monday, May 27, 2019.
INDEPENDENCE DAY	From 5:00 A.M., local time, Friday, June 28 to 11:00 P.M., local time, Sunday, July 7, 2019.
LABOR DAY	From 3:00 P.M., local time, Thursday, August 29 to 11:00 P.M., local time, Monday, September 2, 2019.
THANKSGIVING DAY	From 5:00 A.M., local time, Tuesday, November 26 to 11:00 P.M., local time, Sunday, December 1, 2019.
CHRISTMAS AND NEW YEARS	From 5:00 A.M., local time, Friday, December 20, 2019, to 11:00 P.M., local time, Wednesday, January 1, 2020.

2019 EVENTS (only for projects in event areas)

SPRING CARLISLE AUTO SHOW	From 5:00 A.M., local time, Thursday, April 25 to 6:00 P.M., local time, Sunday, April 28, 2019.
POCONO 400 RACE.....	From 5:00 A.M., local time, Saturday, June 1 to 11:00 P.M., local time, Sunday, June 2, 2019.
CELTIC FLING & HIGHLAND GAMES.....	From 5:00 A.M., local time, Saturday, June 22 to 11:00 P.M., local time, Sunday, June 23, 2019.
GANDER OUTDOOR'S 400 RACE	From 5:00 A.M., local time, Saturday, July 27 to 11:00 P.M., local time, Sunday, July 28, 2019.
CORVETTES AT CARLISLE AUTO SHOW ...	From 5:00 A.M., local time, Friday, August 23 to 6:00 P.M., local time, Sunday, August 25, 2019.
FALL CARLISLE AUTO SHOW.....	From 5:00 A.M., local time, Friday, October 4 to 6:00 P.M., local time, Sunday, October 6, 2019.
MAPLE GROVE RACEWAY NATIONALS	From 5:00 A.M., local time, Friday, September 13 to 11:00 P.M., local time, Sunday, September 15, 2019.
HERSHEY REGION FALL MEET	From 5:00 A.M., local time, Friday, October 11 to 11:00 P.M., local time, Sunday, October 13, 2019.
FORT LIGONIER DAYS.....	From 5:00 A.M., local time, Friday, October 11 to 8:00 P.M., local time, Sunday, October 13, 2019.

2020 HOLIDAYS

EASTER	From 5:00 A.M., local time, Friday, April 10 to 11:00 P.M., local time, Monday, April 13, 2020.
MEMORIAL DAY	From 3:00 P.M., local time, Thursday, May 21 to 11:00 P.M., local time, Monday, May 25, 2020.
INDEPENDENCE DAY	From 5:00 A.M., local time, Friday, June 26 to 11:00 P.M., local time, Sunday, July 5, 2020.
LABOR DAY	From 3:00 P.M., local time, Thursday, September 3 to 11:00 P.M., local time, Monday, September 7, 2020.
THANKSGIVING DAY	From 5:00 A.M., local time, Tuesday, November 24 to 11:00 P.M., local time, Sunday, November 29, 2020.
CHRISTMAS AND NEW YEARS	From 5:00 A.M., local time, Friday, December 18, 2020, to 11:00 P.M., local time, Friday, January 1, 2021.

2020 EVENTS (only for projects in event areas)

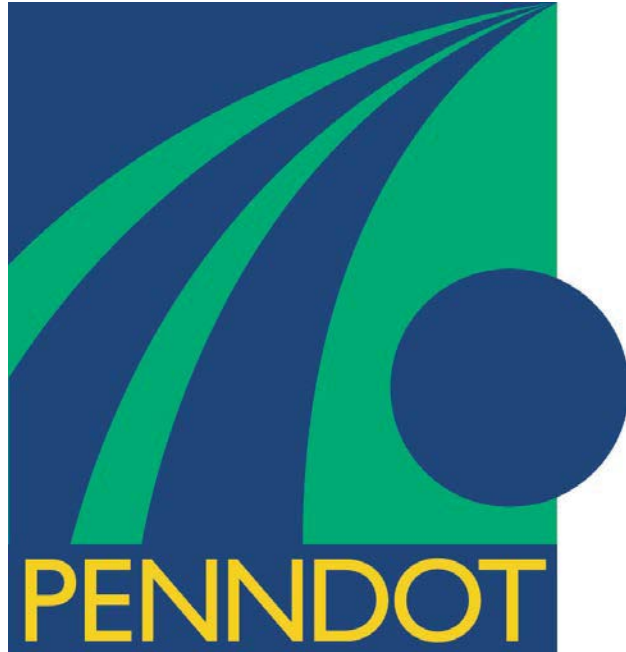
SPRING CARLISLE AUTO SHOW	From 5:00 A.M., local time, Thursday, April 23 to 6:00 P.M., local time, Sunday, April 26 , 2020.
POCONO 400 RACE.....	From 5:00 A.M., local time, Saturday, June 6 to 11:00 P.M., local time, Sunday, June 7 , 2020.
CELTIC FLING & HIGHLAND GAMES.....	From 5:00 A.M., local time, Friday, June 26 to 11:00 P.M., local time, Sunday, June 28 , 2020.
GANDER OUTDOOR'S 400 RACE	From 5:00 A.M., local time, Saturday, August 8 to 11:00 P.M., local time, Sunday, August 9 , 2020.
CORVETTES AT CARLISLE AUTO SHOW ...	From 5:00 A.M., local time, Friday, August 28 to 6:00 P.M., local time, Sunday, August 30 , 2020.
FALL CARLISLE AUTO SHOW.....	From 5:00 A.M., local time, Friday, September 25 to 6:00 P.M., local time, Sunday, September 27 , 2020.
MAPLE GROVE RACEWAY NATIONALS	From 5:00 A.M., local time, Friday, October 2 to 11:00 P.M., local time, Sunday, October 4 , 2020.
HERSHEY REGION FALL MEET	From 5:00 A.M., local time, Friday, October 9 to 11:00 P.M., local time, Sunday, October 11 , 2020.
FORT LIGONIER DAYS.....	From 5:00 A.M., local time, Friday, October 9 to 8:00 P.M., local time, Sunday, October 11 , 2020.

Month ## = Date Needs to be Verified When Event Is Announced

Categorical Exclusion Evaluation

MPMS No.: N/A

Project Name: Pennsylvania Turnpike ITS Project



S.R.: Various Service Plazas on the
Pennsylvania Turnpike

Section: Mainline and Northeast Extension

County: Allegheny, Bedford, Carbon, Chester,
Cumberland, Dauphin, Fulton, Lancaster,
Lebanon, Lehigh, Somerset, Montgomery,
Westmoreland

District: 99

CE Level: 1a

CE Action: 21 and 22

Created: by

Submitted: August 1, 2019 by Cathy Kisenwether

Approved: by

CATEGORICAL EXCLUSION EVALUATION FORM
Part A – General Project Identification and Description

PROJECT IDENTIFICATION:

Part A Prepared By: Pennsylvania Turnpike Commission/ A.D. Marble

Originating Office: Central Office Date: April 8, 2019

Federal Project No.: X099137

Township / Municipality: Plum Borough, Allegheny County;
Hempfield Twp., Westmoreland County; Somerset Twp,
Somerset County; Bedford Township, Bedford County; Taylor
Twp, Fulton County; Hopewell Twp. and West Pennsboro Twp.,
Cumberland County; Lower Swatara Twp. and Conewago Twp.,
Dauphin County; South Londonderry Twp., Lebanon County;
Brecknock Twp., Lancaster County; Wallace Twp.and Tredyffrin
Twp., Chester County; Upper Merion Twp., Montgomery County;
Upper and Lower MacungieTwps., Lehigh County; Penn Forest
Twp., Carbon County.

**As described in
PENNDOT Publication
294: for Level 1a*
CEEs, the CEE Form is
not required; for Level
1a CEEs, complete
Pages A-1, A-2, A-3,
and C-1; for Level 1b
complete Part A, Part B
and Page C-2; and for
Level 2 complete Part
A, Part B and Page C-3.**

As completed, this page is part of:

- Scoping Field View Documentation
- X Categorical Exclusion Evaluation
- Reevaluation

Date: 8/1/2019

Appendix T - RFP# 19-10480-8386

CEE Form

Pennsylvania Department of Transportation

Revised January 2009

PTC ITS Project CE 1a -- Part A-Revised

Release 28.0

Local Name: PTC Installation of ITS Detection Devices at
Service Plazas

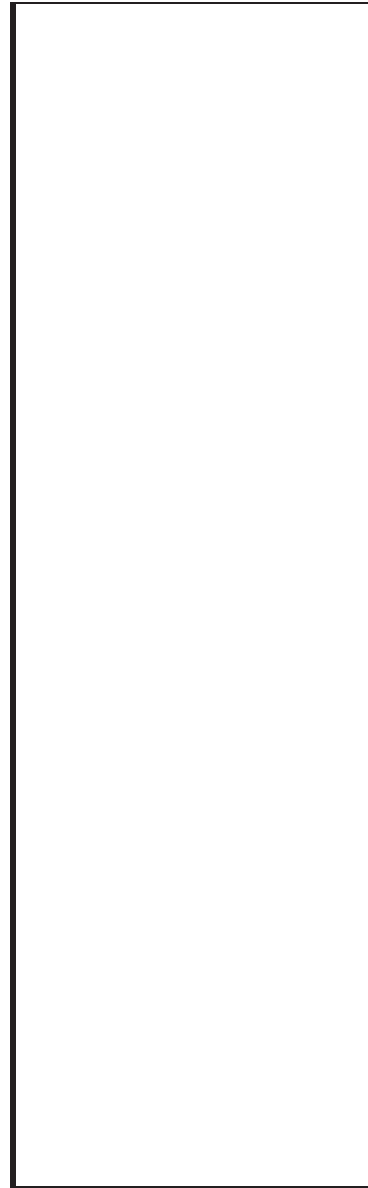
Limits of Work (Segment / Offset)

Start ~MP 49.1	End ~MP 49.6
~MP 77.3	~MP 78.1
~MP 112.0	~MP 112.7
~MP 146.7	~MP 147.8
~MP 171.8	~MP 172.7
~MP 202.1	~MP 202.9
~MP 218.7	~MP 219.6
~MP 249.5	~MP 250.0
~MP 258.5	~MP 259.0
~MP 289.7	~MP 290.1
~MP 304.5	~MP 305.1
~MP 324.4	~MP 324.9
~MP 327.9	~MP 328.7
~MP NE 55.5	~MP NE 56.3
~MP NE 85.6 /	~MP NE 86.7 /

Construction Stations

Start N/A + End N/A +

Total Length ~11.8 miles m (ft)



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existing limited access right-of-way and the paved areas of the deceleration and acceleration ramps and parking areas of the plaza. A 30-foot project study area (PSA) offset from the paved areas described above was utilized to identify and delineate resources. This evaluation addresses seventeen Service Plazas; fifteen on the Pennsylvania Mainline and two on the northeast extension.

The fifteen mainline plazas consist of Oakmont [Milepost (MP 49.3 Eastbound (EB)), New Stanton [MP 77.6 Westbound (WB)), North Somerset (MP 112.3 WB), South Somerset (MP 112.3 EB), North Midway (MP 147.3 WB) South Midway (MP 147.3 EB), Sideling Hill (MP 172.3 EB/WB), Blue Mountain (MP 202.5 WB), Cumberland Valley (MP 219.1 EB), Highspire (MP 249.7 EB), Lawn (MP 258.8 WB), Bowmansville (MP 289.9 EB), Peter J. Camiel (MP 304.8 WB), Valley Forge (MP 324.6 EB), and King of Prussia (MP 328.4 WB). The two service plazas on the northeast extension consist of Allentown [MP 55.9 northbound/southbound (NB/SB)] and Hickory Run (MP 86.1 NB/SB). Project Location Maps (Figures 1A to 1E) showing the location of all the Service Plazas is attached to the end of this section.

Lawn is the only Service Plaza that will have an auxiliary truck parking lot. The auxiliary truck parking lot is a separate PTC project and not part of this project. One digital/static hybrid message sign is required to provide information for each of the two lots within the plaza. The sign will be a Type A mounted aluminum sheet sign with mounted digital display insets.

PROJECT PURPOSE AND NEED:

**Include narrative to describe the project need.
Attach additional information if needed.**

The purpose for the installation of ITS detection equipment is to monitor truck traffic into and out of the service plaza compared to the availability of truck parking, and communicate that availability to trucks using the turnpike. This ITS system is intended to help alleviate the truck parking issues experienced across the turnpike. It will assist truckers to locate available parking as well as maximize the use of existing parking capacity.

With recent growth in commercial truck travel coupled with tightening of hours of service regulations, truck drivers face a critical shortage of parking. This shortage often finds fatigued drivers searching for extended periods of time for safe, legal parking spots. Too often, drivers settle for illicit alternatives such as freeway and ramp shoulders. A 2013 draft study, "Pennsylvania Turnpike Mainline Truck Parking Study," investigated and quantified the existing truck parking shortfall on the turnpike. It inventoried use of existing facilities and identified that a shortfall of 890 spaces existed, and that the shortfall was expected to grow to 1,150 spaces within a ten-year period. The lack of truck parking availability along the turnpike corridor has contributed to illegal parking which creates unsafe conditions.

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PROJECT SETTING AND DISTINCT PROJECT FEATURES:

Provide narrative to adequately describe the project setting (terrain, locale, land use, presence of bicycle/pedestrian or other unique facilities, etc.) and support the evaluation. Any additional information not otherwise covered by this form that is necessary to clearly understand project circumstances should also be included in this section or attached. Narrative should be appropriate for the complexity of the CEE and project circumstances with the length and content varying accordingly. Attach additional information if needed.

The project is within the existing operational right-of-way of the deceleration and acceleration lanes of the Pennsylvania Turnpike and the associated service plazas. The right-of-way is primarily grassy areas with some shrubs and trees. The operational right-of-way for the deceleration and acceleration lanes and the service plaza is maintained.

How many right-of-way parcels must be acquired for this project? None
Describe extent and locations of acquisitions. N/A

Describe the involvement with utilities with this project.

None

Describe the involvement with any railroad (active or inactive) including all rail lines, crossings, bridges, or signals.

There is no involvement with railroads as part of this project.

ADDITIONAL INFORMATION

Remarks, footnotes, supplemental data:

Project Location Maps (Figure 1A to Figure 1E) showing the location of all the Service Plazas is attached.

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CEE Form
PTC ITS Project CE 1a -- Part A-Revised

Pennsylvania Department of Transportation

Revised January 2009
Release 28.0

DESIGN CRITERIA FOR PROJECT:

Functional Classification: N/A Urban Rural

Current ADT: N/A (year)

NOTE: Design Year No-Build/Build ADT, as well as Current/Future Build LOS, is only necessary when PM2.5 hot spot analysis is required. If PM2.5 hot spot analysis is not needed (see the exempt project list in Air Quality Handbook, Pub #321), "N/A" can be entered for these values.

Design Year No-Build ADT: N/A

Current LOS: N/A

Design Year Build ADT: N/A

Future Build LOS: N/A

DHV: N/A Truck %: N/A

D (Directional Distribution) %: N/A

Design Speed: N/A km/h (mi/h)

Posted Speed: N/A km/h (mi/h)

Pavement Width: N/A m (ft)

Shoulder Width: N/A m (ft)

Clear Zone: N/A m (ft)

Median Width: N/A m (ft)

Design Exception Required? Yes No

If "Yes", explain.

Setting: Urban Suburban Rural

Topography: Level Rolling Mountainous

ROADWAY CHARACTERISTICS:

Number of Roadways: 0

Note: Refer to spreadsheet Roadway. Roadway Characteristics are specified in a Microsoft Excel Spreadsheet. For multiple Roadways, copy the worksheet within the spreadsheet.

STRUCTURES:

Number of structures included in this project: 0

Note: Refer to spreadsheet Structures. Structures are specified in a Microsoft Excel Spreadsheet. For multiple Structures, copy the worksheet within the spreadsheet.

As completed, this page is part of:

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TRAFFIC CONTROL MEASURES:

Detours should be clearly shown on map (attached) and discussed, including provisions for pedestrians, bicycles, handicapped and the elderly.

The following traffic control measures will be implemented:

- Temporary Bridge(s)
- Temporary Roadway
- Detour
- Ramp Closure
- Other (specify below)
- None

Other description: The work to install the ITS Devices will be conducted within the existing operational right-of-way. Required signing for work from the existing shoulder or areas adjacent to the shoulder will be provided to alert the travelling public of work in accordance with the Pennsylvania Turnpike's Maintenance and Protection of Traffic procedures. If a lane closure is warranted to conduct the work, then the Pennsylvania Turnpike's Maintenance and Protection of Traffic procedures will be implemented.

If any of the above traffic control measures will be implemented, indicate the following conditions.

- | | | | |
|---|--|--------------------------------|---|
| Provisions for access by local traffic will be made and so posted. | <input checked="" type="checkbox"/> True | <input type="checkbox"/> False | |
| Through-traffic dependent business will not be adversely affected. | <input checked="" type="checkbox"/> True | <input type="checkbox"/> False | |
| There will be no interference with any local special event or festival. | <input checked="" type="checkbox"/> True | <input type="checkbox"/> False | |
| There will be no substantial environmental consequences associated with the traffic control measure(s). | <input checked="" type="checkbox"/> True | <input type="checkbox"/> False | |
| There is no substantial controversy associated with the traffic control measure(s). | <input checked="" type="checkbox"/> True | <input type="checkbox"/> False | |
| There are no substantial impacts to bicycle or pedestrian routes. | <input checked="" type="checkbox"/> True | <input type="checkbox"/> False | |
| An alternate, ADA compliant bicycle/pedestrian access route is available. | <input type="checkbox"/> True | <input type="checkbox"/> False | <input checked="" type="checkbox"/> N/A |

If the answer to any of the above questions was "False", please explain.

Approximate length of planned detour:

Detour Map (ATTACH TO THE CEE.)

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Make the selection that best describes the planned detour.

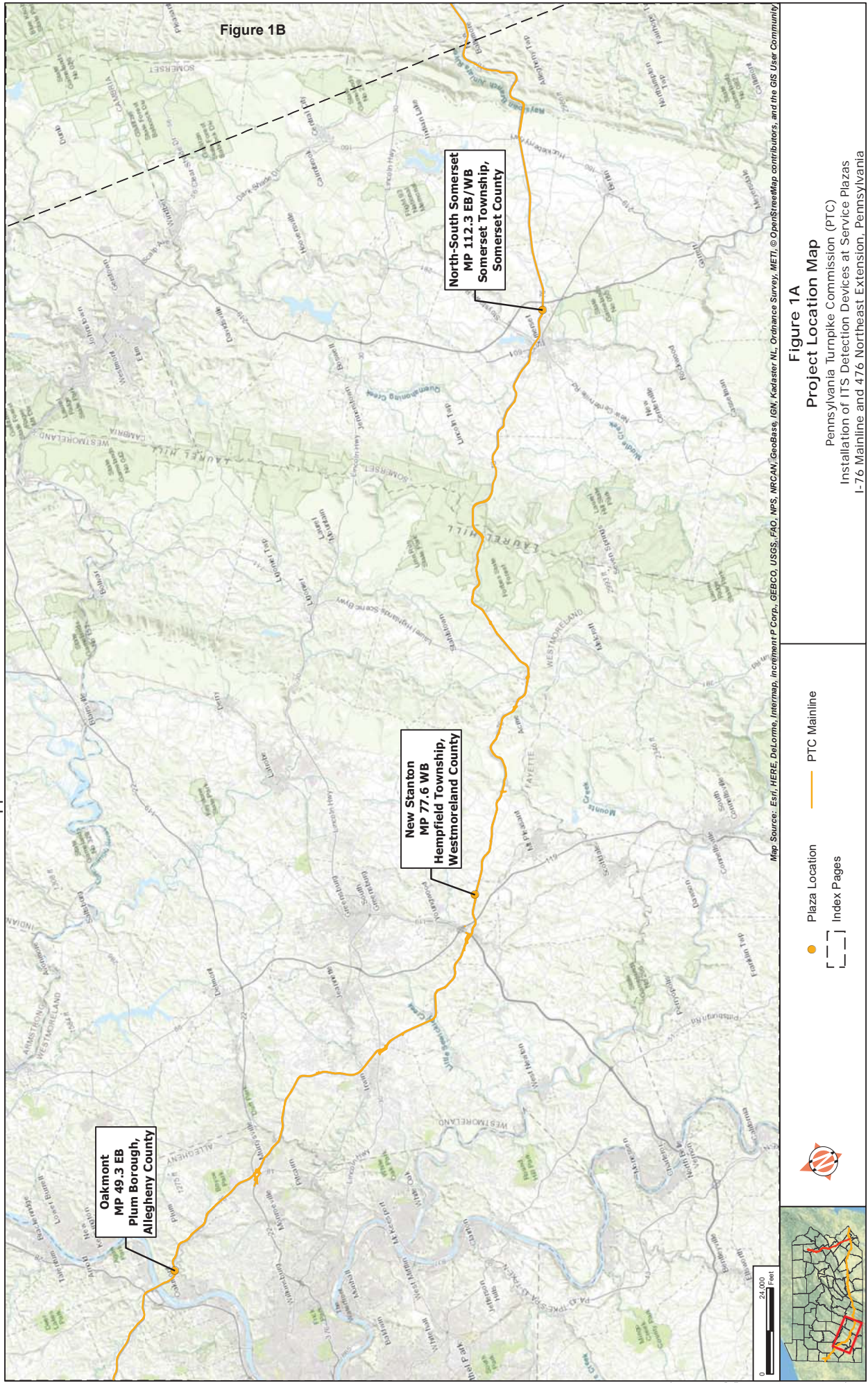
- Detour will use local roads with no improvements.
- Detour will involve improvements to local roads with no resulting impacts on safety or the environment.
- Detour will involve improvements to local roads and will impact safety and/or the environment.
- Detour will use only state owned roads.

Describe impacts:

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0 24,000 Feet



- Plaza Location
- PTC Mainline
- Index Pages

Figure 1A

Project Location Map

Pennsylvania Turnpike Commission (PTC)
 Installation of ITS Detection Devices at Service Plazas
 I-76 Mainline and 476 Northeast Extension, Pennsylvania

Map Source: Esri, HERE, DeLorme, Intermap, Increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeBCO, IGN, Kadaster NL, Ordnance Survey, METI, © OpenStreetMap contributors, and the GIS User Community

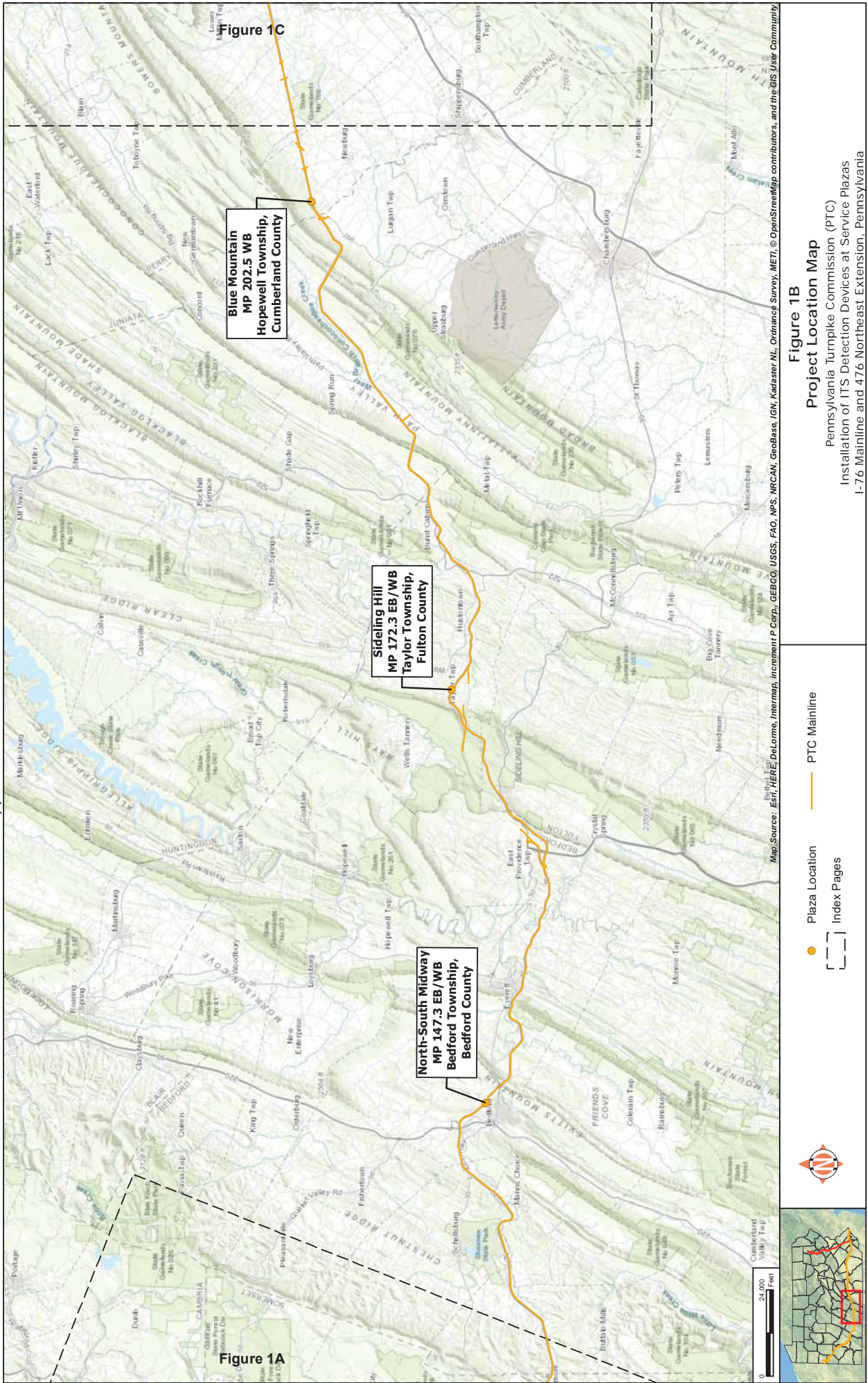


Figure 1A

Figure 1B

Project Location Map

Map Source: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, METI, © OpenStreetMap contributors, and the GIS User Community

Plaza Location ●

PTC Mainline —

Index Pages []

Pennsylvania Turnpike Commission (PTC)
 Installation of ITS Detection Devices at Service Plazas
 I-76 Mainline and 476 Northeast Extension, Pennsylvania

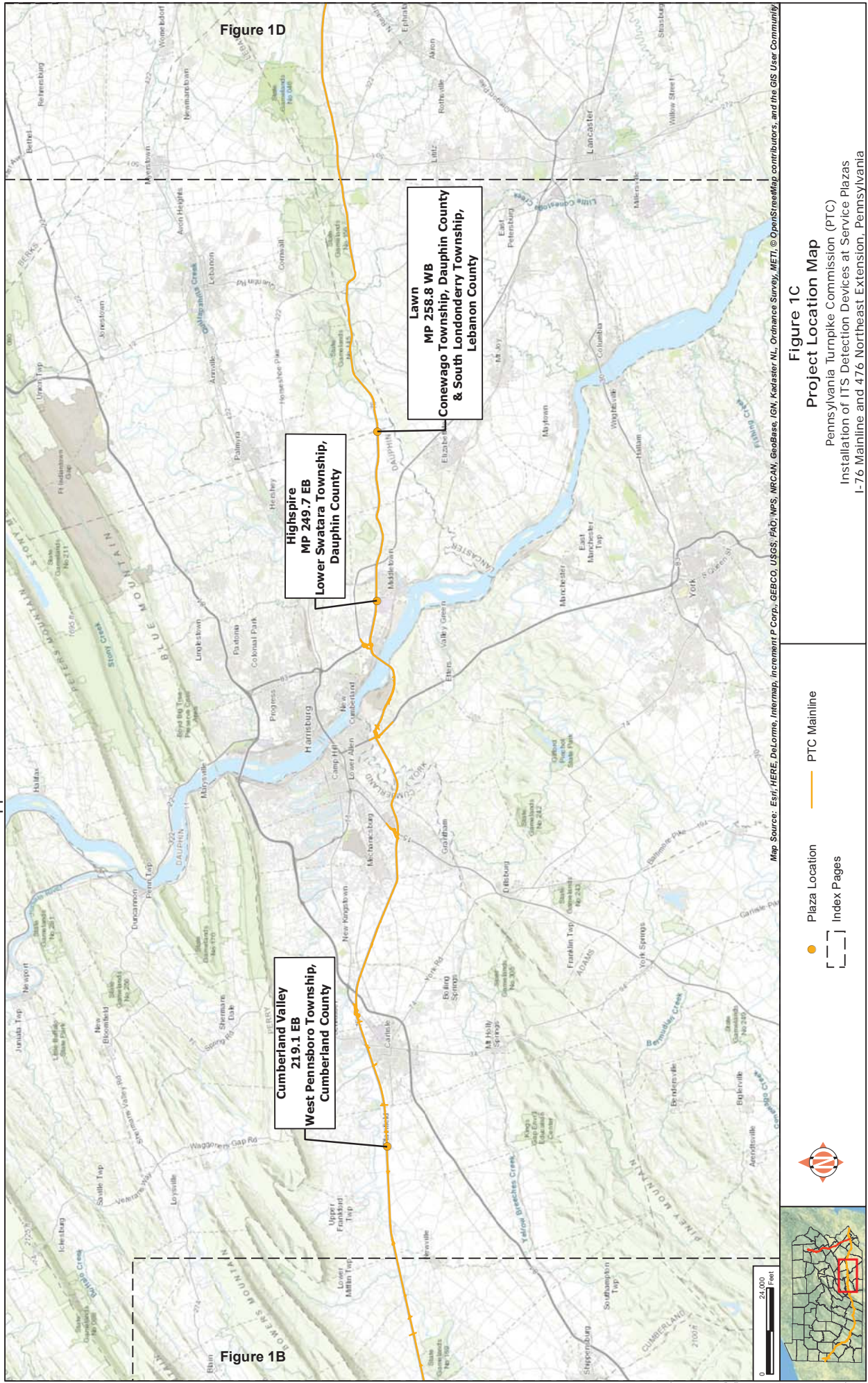


Figure 1B

Figure 1C

Project Location Map

Pennsylvania Turnpike Commission (PTC)

Installation of ITS Detection Devices at Service Plazas

I-76 Mainline and 476 Northeast Extension, Pennsylvania

Legend:

● Plaza Location

— PTC Mainline

Map Source: Esri, HERE, DeLorme, Intermap, Increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeBCO, IGN, Kadaster NL, Ordnance Survey, METI, © OpenStreetMap contributors, and the GIS User Community

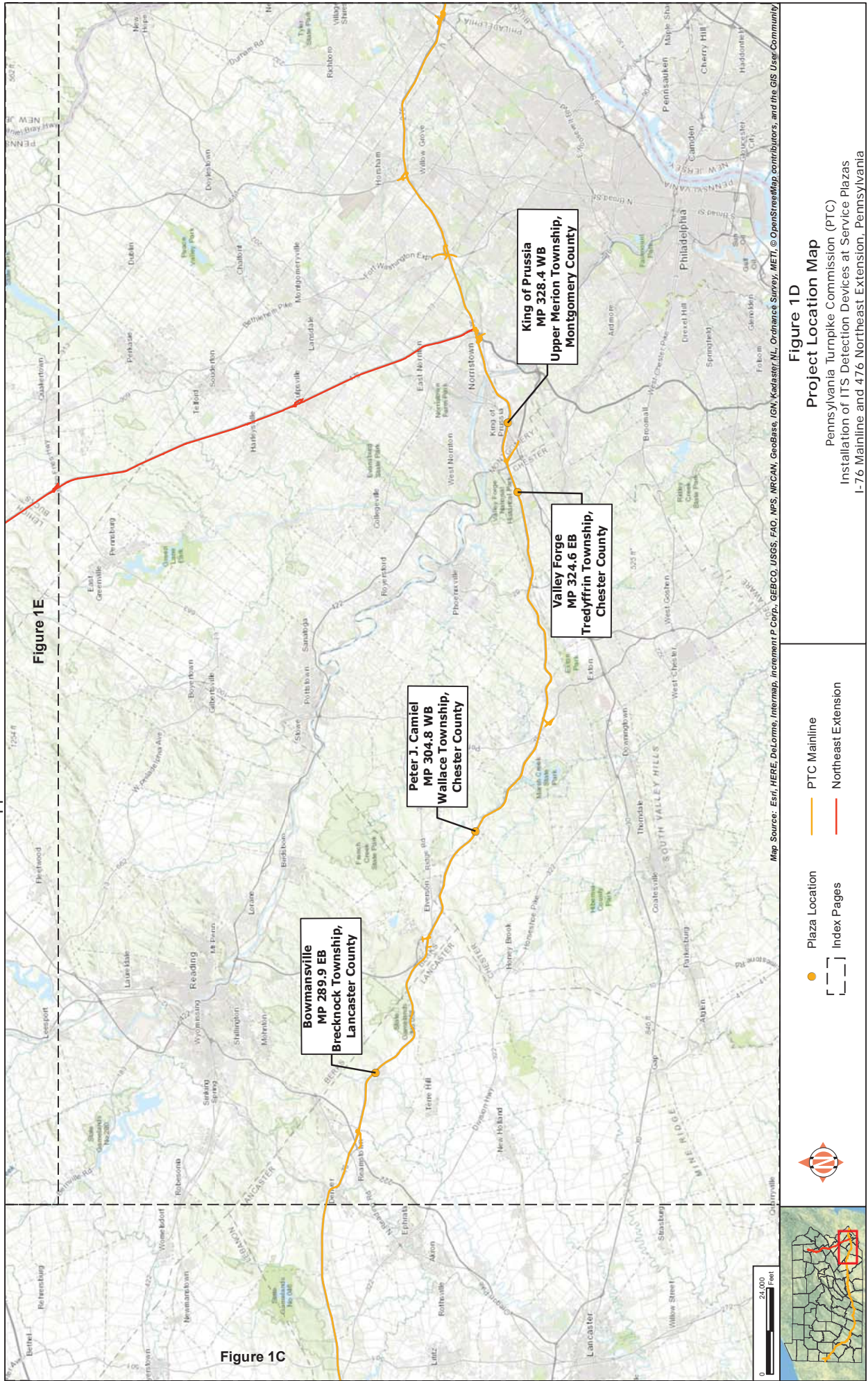
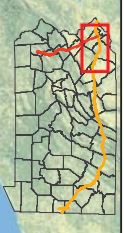


Figure 1D
Project Location Map

Pennsylvania Turnpike Commission (PTC)
Installation of ITS Detection Devices at Service Plazas
I-76 Mainline and 476 Northeast Extension, Pennsylvania

0 24,000 Feet



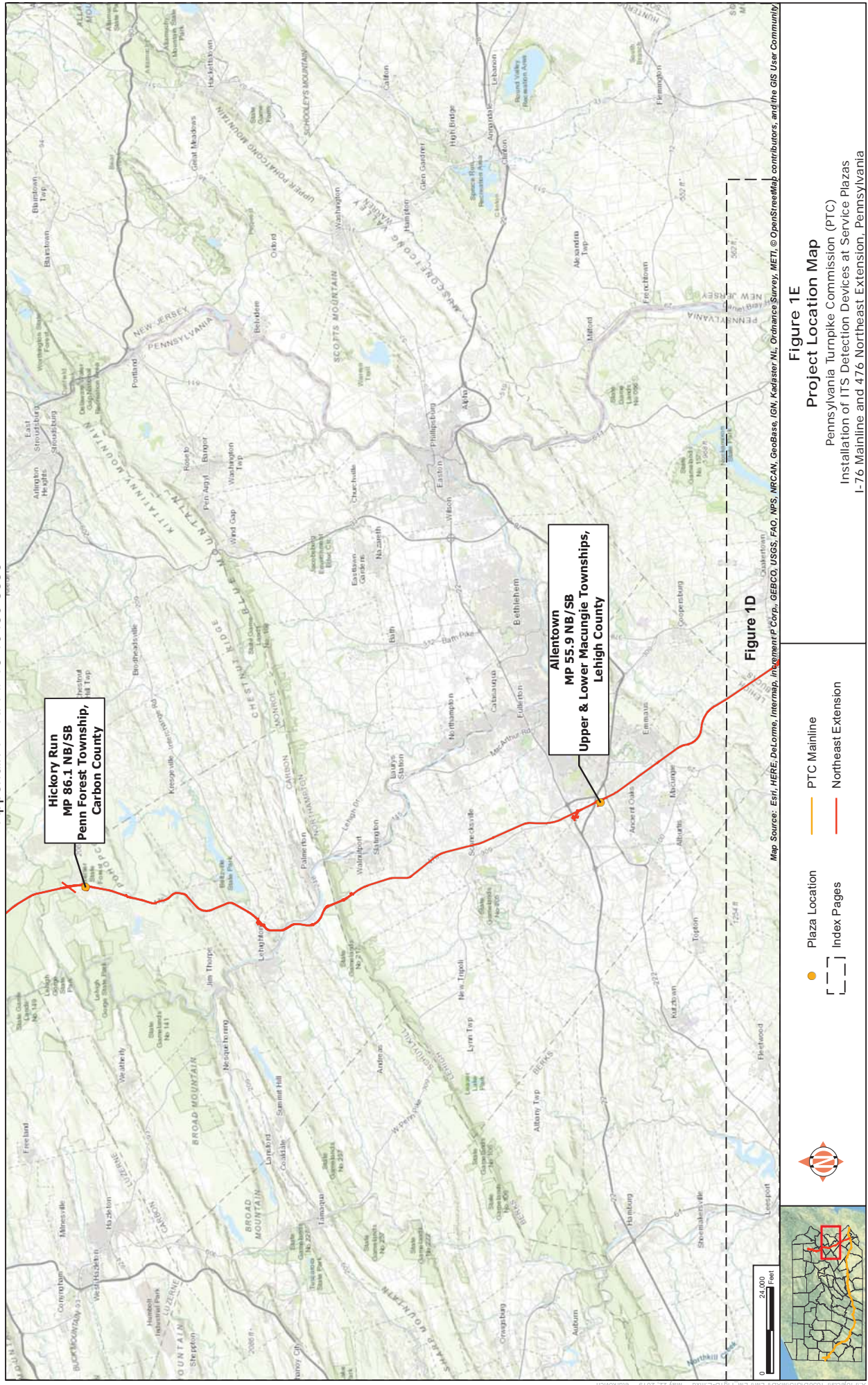


Figure 1E
Project Location Map
 Pennsylvania Turnpike Commission (PTC)
 Installation of ITS Detection Devices at Service Plazas
 I-76 Mainline and 476 Northeast Extension, Pennsylvania

Figure 1D

Allentown
 MP 55.9 NB/SB
 Upper & Lower Macungie Townships,
 Lehigh County

Hickory Run
 MP 86.1 NB/SB
 Penn Forest Township,
 Carbon County

Map Source: Esri, HERE, DeLorme, Intermap, IntraMap, IGN, Kadaster NL, Ordnance Survey, METI, © OpenStreetMap contributors, and the GIS User Community

Plaza Location
 Index Pages
 PTC Mainline
 Northeast Extension

24,000 Feet
 North Arrow

**Part B – Level 1b and 2
 Categorical Exclusion Evaluation**

Federal Project Number: X099137

Section A – Environmental Evaluation Subject Areas

1. AQUATIC RESOURCES

- 1 If the resource is not present, do not complete the remainder of this subject area.
- 2 If the resource is present but no impacts are anticipated, describe in Remarks or on attached sheet(s) why there will be no impact.
- 3 Describe impacts in Remarks or attached sheet(s).
- 4 Unless otherwise noted, documentation for subject areas should be maintained in the project's Technical Support Data and does not need to be submitted with the CEE.

	<u>PRESENCE</u>		<u>IMPACTS</u>		<u>DOCUMENTATION</u> ⁴
	Not Present	Present	No ²	Yes ³	
STREAMS, RIVERS & WATERCOURSES¹	<input type="checkbox"/>	<input checked="" type="checkbox"/>			
Intermittent (streams only)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Perennial	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Wild trout streams	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Stocked trout streams	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

Identify all streams and their classifications per Chapter 93 of 25 PA Code (e.g. CWF, WWF, HQ, EV):Oakmont Service Plaza: UNT-1, UNT-2, and UNT-3 to Plum Creek- WWF; New Stanton Service Plaza: UNT-3, UNT-4 to Wilson Run - WWF; North Somerset Service Plaza: UNT-1, UNT-2, UNT-3, UNT-4, and UNT-5 to East Branch Coxes Creek - TSF; South Somerset Service Plaza: UNT-6, UNT-7, UNT-8, UNT-9, UNT-10, and UNT-11 - TSF; Blue Mountain Service Plaza: Newburg Run - WWF, MF; Cumberland Valley Service Plaza: UNT-1 - WWF, MF as it is within the Mount Rock Spring Creek basin; Highspire Service Plaza: UNT-13 to Susquehanna River - WWF, MF; Lawn Service Plaza: UNT to Conewago Creek - TSF, MF; Bowmansville Service Plaza: UNT to Muddy Creek - TSF, MF; Peter J. Camiel Service Plaza: 2 UNTs to Marsh Creek - HQ-TSF, MF; King of Prussia Service Plaza: UNT to Crow Creek - WWF, MF; Allentown Service Plaza: Three UNT's to Cedar Creek and two crossings of Cedar Creek - HQ-CWF, MF as its within the basin of Little Lehigh Creek. Hickory Run Service Plaza - UNT to Yellow Run and UNT to Stony Creek - EV, MF as Yellow Run is in the basin of Stony Creek.

Linear feet of stream impact: None

NOTE: This amount should be consistent with the linear feet of impact indicated on Part B Section E.

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Remarks: Bowmansville Service Plaza: Muddy Run is listed as a stocked trout stream, but the project is well over 0.5 mile upstream of the upper limit; therefore, no in-stream restrictions are anticipated. Allentown Service Plaza: Cedar Creek and its unnamed tributaries will have in-stream restrictions from October 1 through April 1 since Cedar Creek, through the project, is listed as a Pennsylvania Wild Trout Waters (Natural Reproduction) and is upstream of the listed section of Class A Wild Trout Waters (February 29, 2019). Hickory Run Service Plaza: The UNT to Yellow Run and the UNT to Stony Creek will have in-stream restrictions of October 1 through April 1. Yellow Run is listed as Class A Wild Trout Waters (February 29, 2019) and Pennsylvania Wild Trout Waters (Natural Reproduction) - February 2019. Stony Creek is listed as a Pennsylvania Wild Trout Waters (Natural Reproduction), and the UNT is upstream of the listed section of Class A Wild Trout Waters.

FEDERAL WILD & SCENIC RIVERS & STREAMS¹

- National Parks Service Coordination Letter
- U.S. Forest Service Coordination Letter (Allegheny River)

Remarks: According to the National Wild and Scenic Rivers System website (<https://www.rivers.gov/>), there are no Federal Wild and Scenic Rivers or Streams at any of the Service Plazas that are part of the project.

	<u>PRESENCE</u>		<u>IMPACTS</u>		<u>DOCUMENTATION⁴</u>
	Not Present	Present	No ²	Yes ³	

STATE SCENIC RIVERS & STREAMS¹

- DCNR Coordination Letter

Remarks: According to the Pennsylvania Scenic Rivers Program (http://www.docs.dcnr.pa.gov/cs/groups/public/documents/document/DCNR_20033444.pdf), there are no Pennsylvania scenic rivers or streams at any of the Service Plazas that are part of the project.

NAVIGABLE WATERWAYS¹

- Coast Guard Coordination

Remarks: None of the streams identified at the Service Plazas require Coast Guard Coordination. None of the streams are listed as used for recreation in either Keystone Canoeing (Gertler, 2004) or on the American Whitewater website (<https://www.americanwhitewater.org/content/River/state-summary/?state=PA>)

OTHER SURFACE WATERS¹

	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reservoirs	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lakes	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Farm Ponds	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Detention basins	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stormwater Management Facilities	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Others (Describe In Remarks)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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Remarks: Stormwater management facilities are located within the operational right-of-way at the North Somerset, South Somerset, Blue Mountain, Cumberland Valley, Bowmansville, and King of Prussia Service Plazas on the mainline; and the Allentown and Hickory Run Service Plazas on the northeast extension. They will not be impacted by the installation of the ITS Detection Devices. No other surface waters were identified during field reconnaissance.

GROUNDWATER RESOURCES¹

	<input type="checkbox"/>	<input checked="" type="checkbox"/>			
State, County, Municipal or Local Public Supply Wells	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Residential Well	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Well Head Protection Area	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Springs, Seeps	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Potable Water Source	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sole Source and/or Exceptional Value Aquifers	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>

Remarks: Seven Service Plazas have individual on-site wells. These are: Sideling Hill, Blue Mountain, Cumberland Valley, Lawn, Bowmansville, Peter J. Camiel, and on the Northeast Extension, Hickory Run. Ten of the Service Plazas have a municipal water connection. These are Oakmont, New Stanton, North Somerset, South Somerset, North Midway, South Midway, Highspire, Valley Forge, King of Prussia, and on the Northeast Extension, Allentown. There are no anticipated impacts to wells from installation of sensors in the pavement.

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Revised January 2009

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Release 28.0

	<u>PRESENCE</u>		<u>IMPACTS</u>		<u>DOCUMENTATION</u> ⁴
	Not Present	Present	No ²	Yes ³	
WETLANDS ¹	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/> Wetland Identification and Delineation Report
Open Water	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Conceptual Mitigation Plan
Vegetated					<input type="checkbox"/> 404(b)(1) Alternative Analysis (ATTACH TO THE CEE)
Emergent	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Jurisdictional Determination (ATTACH JD LETTER TO THE CEE)
Scrub Shrub	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Functional Assessment Analysis
Forested	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Exceptional Value	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

METHODOLOGY:

Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont.

- Options/design modifications were investigated to avoid impacts to wetlands. Yes No N/A
- There are no practicable alternatives to construction within the wetlands. Yes No N/A
- The alternative chosen (proposed project) includes all practicable measures to minimize harm to wetlands. Yes No N/A

NOTE: If the answer to any of the above three questions is "No", provide an explanation in the Remarks Section below.

Executive Order 11990 Compliance (check box if applicable)

Based on information herewithin, it is determined that there is no practicable alternative to the proposed construction in wetlands and the proposed action includes all practicable measures to minimize harm to wetlands which may result from such use.

Number of wetlands impacted: none

Acreage of wetlands impacted: N/A

NOTE: This amount should be consistent with the acreage indicated on Part B Section E.

Remarks:

A total of twelve wetlands were identified at five Service Plazas. Five emergent wetlands at New Stanton; three emergent wetlands at North Somerset; one emergent wetland each at Lawn and Peter J. Camiel; and two EV wetlands at Hickory Run, one emergent, and one a combination of emergent and forested.

	<u>PRESENCE</u>		<u>IMPACTS</u>		<u>DOCUMENTATION</u> ⁴
	Not Present	Present	No ²	Yes ³	
COASTAL ZONE ¹	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> DEP Coastal Zone Coordination Letter

Remarks: There are no coastal zones within the existing operational right-of-way of the Turnpike.

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	<u>PRESENCE</u>	<u>IMPACTS</u>	<u>DOCUMENTATION</u> ⁴
	Not Present	Present	No ² Yes ³
FLOODPLAINS ¹	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/> <input checked="" type="checkbox"/>

No significant floodplain encroachment would occur

If, after consultation with FHWA, it is concluded that there will be significant floodplain encroachment, a floodplain finding is required, and an EIS or EA will need to be prepared because a CEE is not an appropriate level of NEPA documentation. Significant floodplain encroachment is defined in the CE Handbook.

Remarks: The installation of ITS detection devices will have no significant floodplain encroachment. The project will have no significant floodplain encroachment, as defined in 23 CFR Part 650, Subpart A, Section 650.105(q), since the project will not: 1. Have a significant potential for interruption or termination of a transportation facility which is needed for emergency vehicles or provides a community's only evacuation route, 2. Have a significant risk, 3. Have a significant adverse impact on natural and beneficial values.

SOIL EROSION AND SEDIMENTATION¹

Are there effects due to construction activities? No Yes

DOCUMENTATION⁴

- E&S Control Plan
- Coordination w/County Conservation District
- NPDES Stormwater Construction Permit

Remarks: All work will occur within the existing pavement. No earth disturbance is anticipated.

ADDITIONAL INFORMATION

Remarks, footnotes, supplemental data:

Wetland and Waterway Mapping, and summary tables for both identified wetlands and streams are attached to the end of the document. EV wetlands at Hickory Run are due to Chapter 93 (EV, MF) and Wild Trout designations of stream basin.

2. LAND

- 1 If the resource is not present, do not complete the remainder of this subject area.
- 2 If the resource is present but no impacts are anticipated, describe in Remarks or on attached sheet(s) why there will be no impact.
- 3 Describe impacts in Remarks or attached sheet(s).
- 4 Unless otherwise noted, documentation for subject areas should be maintained in the project's Technical Support Data and does not need to be submitted with the CEE.

	<u>PRESENCE</u>	<u>IMPACTS</u>	<u>DOCUMENTATION</u> ⁴
	Not Present	Present	No ² Yes ³
AGRICULTURAL RESOURCES ¹	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
Productive Agricultural Land	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Farmland Assessment Report

As completed, this page is part of: Scoping Field View Documentation Date: 8/1/2019
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CEE Form
PTC ITS Project CE 1a -- Part B-Revised

Pennsylvania Department of Transportation

Revised January 2009
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Agricultural Security Areas	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Prime Agricultural Land	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> ALCAB Approval
Agricultural Conservation Easements	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Agricultural Land Preservation Policy Conformance Statement
Farmland Enrolled in Preferential Tax Assessments	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Form AD-1006 – Farmland Conversion Impact Rating
Agricultural Zoning	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Coordination with County Tax Assessor
Soil Capability Classes I, II, III, IV	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Prime or Unique Soil	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Statewide or Locally Important Soils	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Remarks: There may be soils in Soil Capability Classes I, II, III and IV; Prime Farmland Soil; and Additional Soils of Statewide Importance within the operational right-of-way of the Turnpike, but these soils have already been converted to transportation use.

VEGETATION¹	<input type="checkbox"/>	<input checked="" type="checkbox"/>			
Landscaped	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Agricultural	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Forest Land	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Rangeland	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Other (Describe in Remarks)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Invasive Non-Native Plants are Present Yes No

If invasive non-native plants are present, are measures being taken to minimize movement of invasive plant parts (roots, tubers, seeds)?

Yes No

If there will be vegetation impacts, will native plants be used in project landscaping or mitigation? If Yes, describe in Remarks.

Yes No

Remarks: All work will be within the existing pavement. There will be no earth disturbance.

UNIQUE GEOLOGIC RESOURCES¹	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
--	-------------------------------------	--------------------------	--------------------------	--------------------------	--

Remarks: There are no unique geologic resources located near any of the Service Plazas according to Outstanding Scenic Geologic Features of Pennsylvania and Outstanding Scenic Geologic Features of Pennsylvania Part 2.

As completed, this page is part of:

- Scoping Field View Documentation
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	<u>PRESENCE</u>		<u>IMPACTS</u>		<u>DOCUMENTATION⁴</u>
	Not Present	Present	No ²	Yes ³	
PARKS & RECREATION FACILITIES¹	<input checked="" type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/> Section 6(f) (ATTACH DOCUMENT)
National	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Coordination with NPS/DCNR (LWCF)
State	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Coordination with PA General Assembly/DCNR (Project 70)
Local	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Other (describe in remarks)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

If any impacts are "Yes", a Section 4(f) Evaluation may be needed.

Were any of the impacted properties acquired through the use of Land and Water Conservation or Project 70 funds?

Yes No

Remarks: There are no parks or recreational facilities within the existing operational right-of-way of the Pennsylvania Turnpike.

FOREST & GAMELANDS¹	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
National Forests	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
State Forests	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
State Gamelands	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

If any impacts are "Yes", a Section 4(f) Evaluation may be needed.

Number of state Gamelands impacted: _____

Acreage of state Gamelands impacted: _____

Remarks: There are no National or State Forests, or State Gamelands within the existing operational right-of-way of the Pennsylvania Turnpike.

NOTE: Ensure that state gameland impacts provided here are consistent with the impact acreage indicated on Part B Section E.

WILDERNESS, NATURAL & WILD AREAS¹	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
Federal Wilderness Areas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Federal Natural or Wild Areas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
State Natural or Wild Areas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Private Natural Areas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

If any impacts are "Yes", a Section 4(f) Evaluation may be needed.

Remarks: There are no wilderness, natural or wild areas within the existing operational right-of-way of the Pennsylvania Turnpike.

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NATIONAL NATURAL LANDMARKS¹

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	National Park Service Coordination Letter
-------------------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--

Remarks: There are no National Natural Landmarks within the existing Pennsylvania Turnpike operational right-of-way near any of the Service Plazas within the project (<https://www.nps.gov/subjects/nnlandmarks/index.htm>).

HAZARDOUS OR RESIDUAL WASTE SITES¹

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Phase I <input type="checkbox"/> Phase II <input type="checkbox"/> Phase III <input checked="" type="checkbox"/> Other <input type="checkbox"/> No Documentation Required
--------------------------	-------------------------------------	--------------------------	--------------------------	--

Is remediation required? Yes No Unknown at this time

If "Yes" or "Unknown at this time", describe:

Areas of impact and depths of excavations (if applicable) have yet to be developed. Once these have been finalized, they will require comparison to the impacted soil and/or groundwater areas of each respective service plaza that are governed by an environmental covenant, or on-going or incomplete underground storage tank cleanup activities.

Remarks: A review of online regulatory databases identified known and potential waste issues at several of the service plazas. All 17 service plazas have multiple in-service underground storage tanks (USTs) related to gas stations at each facility. A total of nine Service Plazas were identified as having environmental covenants, which impose site-specific activity and use limitations. These service plazas include: Oakmont, North Somerset, North Midway, Sideling Hill, Highspire, Lawn, Peter J. Camiel, Allentown, and Hickory Run. The restrictions associated with each service plaza's environmental covenant are included in the mitigation commitment section. Four service plazas were identified as having on-going or incomplete storage tank cleanup activities, which may result in residually impacted soil and/or groundwater at the identified service plazas. These service plazas include: Cumberland Valley, Bowmansville, Peter J. Camiel, and Valley Forge. The North Somerset and South Midway Service Plazas are listed under Environmental Cleanup & Brownsfields, and Waste Management Program. The South Somerset Service Plaza is listed under Waste Management Program.

ADDITIONAL INFORMATION

Remarks, footnotes, supplemental data:

A summary table for hazardous and residual waste sites is attached to the end of the document.

3. WILDLIFE

- 1 **If the resource is not present, do not complete the remainder of this subject area.**
- 2 **If the resource is present but no impacts are anticipated, describe in Remarks or on attached sheet(s) why there will be no impact.**
- 3 **Describe impacts in Remarks or attached sheet(s).**
- 4 **Unless otherwise noted, documentation for subject areas should be maintained in the project's Technical Support Data and does not need to be submitted with the CEE.**

PRESENCE IMPACTS DOCUMENTATION⁴

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	Not Present	Present	No ²	Yes ³	
WILDLIFE & HABITAT¹	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
Sanctuaries/Refuges	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> PAMHEP or Other Accepted Methodology
Resources Meriting Compensation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

If any impacts are "Yes", a Section 4(f) Evaluation may be needed.

Remarks: There are no Sanctuaries or refuges within the existing operational right-of-way of the Pennsylvania Turnpike.

<u>PRESENCE</u>	<u>IMPACTS</u>
<p>THREATENED & ENDANGERED PLANTS & ANIMALS</p> <p><input type="checkbox"/> Not Present</p> <p><input checked="" type="checkbox"/> Present</p> <p><input type="checkbox"/> No Coordination Needed</p>	<p><input checked="" type="checkbox"/> No Potential Impacts</p> <p><input checked="" type="checkbox"/> Potential Impacts with Avoidance Measures</p> <p><input type="checkbox"/> Potential Impacts with Conservation Measures</p> <p><input type="checkbox"/> Potential Impacts</p>

Reviews, concurrences and approvals for Threatened and Endangered Species searches/coordination are time sensitive. If the coordination is greater than one-year old, a new coordination effort will be required with the commenting/review agency(s).

If impacts is "Potential Impacts with Avoidance Measures", describe avoidance measures:

The Valley Forge Service Plaza has a potential impact with a species under the jurisdiction of the USFWS. The avoidance measure is, "Do not conduct this project/activity within 50 feet of any streams, rivers, creeks, or tributaries. This includes both perennial and intermittent waterways." The Pennsylvania Turnpike Commission has agreed to adhere to the avoidance measure and has signed the attached PNDI.

If impacts are "Potential Impacts with Conservation Measures", will the suggested conservation measures be implemented?

Yes No

DOCUMENTATION

PNDI ER Receipt
(ATTACH TO THE CEE)

AGENCY DOCUMENTATION

- PFBC Correspondence
(ATTACH TO THE CEE)
- PGC Correspondence
(ATTACH TO THE CEE)
- DCNR Correspondence
(ATTACH TO THE CEE)
- USFWS Correspondence
(ATTACH TO THE CEE)

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Remarks: Five of the fifteen PNDI's have potential impacts to threatened and endangered species. The North and South Somerset Service Plazas (one PNDI) have a potential impact to the PA threatened northern harrier (*Circus cyaneus*) under the jurisdiction of the PA Game Commission. On May 28, 2019, the PA Game Commission determined that no impact is likely due to project implementation. The Lawn Service Plaza has a potential impact to the endangered bog turtle (*Clemmys muhlenbergii*) under the jurisdiction of the USFWS. On May 28, 2019 the USFWS determined that the project was not likely to affect the bog turtle at the Lawn Service Plaza. The Peter J. Camiel Service Plaza has a potential impact to the special concern species, marsh wren (*Cistothorus palustris*) under the jurisdiction of the PA Game Commission and a potential impact to the endangered bog turtle under the jurisdiction of the USFWS. The Pennsylvania Game Commission determined on May 16, 2019 that no impact was anticipated due to project implementation. The USFWS on May 16, 2019 determined that no adverse effect to the species would occur due to project implementation. Valley Forge Service Plaza has a potential impact to a species under the jurisdiction of the USFWS with an avoidance measure as described above. The Hickory Run Service Plaza has a potential impact to the endangered variable sedge (*Carex polymorpha*) under the jurisdiction of the PADCNr. The PADCNr determined on April 17, 2019 that no impact was anticipated due to project implementation. All PNDI's and clearance letters received to date are attached.

The following Service Plazas are located in Counties with known bog turtle populations: Blue Mountain, Cumberland Valley, Lawn, Bowmansville, Peter J. Camiel, Valley Forge and King of Prussia on the mainline; and Allentown on the northeast extension. There will be no impacts to wetlands or streams due to project implementation. Coordination at Lawn, Peter J. Camiel, and Valley Forge was initiated. For Lawn and Peter J. Camiel, the USFWS determined on May 28, 2019 and May 16, 2019, respectively, that no adverse effect to the species would occur; and for Valley Forge an avoidance measure will be implemented. Coordination with the USFWS and possibly a Phase I Bog Habitat Survey will be conducted for Blue Mountain, Cumberland Valley, Bowmansville, King of Prussia and Allentown if a Chapter 105 permit is required.

ADDITIONAL INFORMATION

Remarks, footnotes, supplemental data:

4. CULTURAL RESOURCES

Were Cultural Resource Professionals (CRPs) needed for project scoping?

Yes

No

CRP Scoping Field View Date: _____

CRP Architectural Historian in Attendance: _____

CRP Archaeologist in Attendance: _____

For projects exempted from further Section 106 review under Stipulation C or eligible for Department delegated review under Stipulation D, determine whether eligible resources are present for application of Section 4(f).

Is the project exempted from further review by the CRP by application of Stipulation C of the "Programmatic Agreement among the FHWA, PennDOT, the PA SHPO, and the ACHP Regarding Implementation of Minor Transportation Projects"?

Yes

No

If the activity is exempted from review by the CRP by application of Stipulation C, list the applicable Stipulation C subsection with the appropriate activity (e.g. C.1.a., C.2.d.), the name of the individual making the exemption, and the date it was made in the spaces below:

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Stipulation C Activity:

Environmental District Designee
Making Exemption:

Date of Exemption:

Is the project eligible for delegated review under Stipulation D of the "Programmatic Agreement among the FHWA, PennDOT, the PA SHPO, and the ACHP Regarding Implementation of Minor Transportation Projects"?

Yes No

If the project is delegated for expedited review under Stipulation D attach the "CRP Finding under Stipulation D."

	<u>PRESENCE</u>				<u>LEVEL OF EFFECTS</u>			<u>DOCUMENTATION</u>
	Not Present	Potentially Eligible Resource Present	Eligible Resource Present	Listed Resource Present	No Historic Properties Affected	No Adverse Effect	Adverse Effect	
CULTURAL RESOURCES	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Executed MOA/Programmatic Agreement (Project Specific) <input type="checkbox"/> Stipulation D.2 or D.3 Submittal Form <input type="checkbox"/> Section 106 Concurrence Letter <input type="checkbox"/> PCRRF <input type="checkbox"/> TE Project Field Assessment and Finding Checklist <input type="checkbox"/> Historic Structures Survey/Determination of Eligibility Report <input type="checkbox"/> Phase IA Archaeological Background Research Report <input type="checkbox"/> Geomorphological Survey Report <input type="checkbox"/> Phase I Archaeology Survey <input type="checkbox"/> Phase II Archaeology Survey <input type="checkbox"/> Phase III Archaeology Work Plan <input type="checkbox"/> Abbreviated Determination of Effect Report <input type="checkbox"/> Determination of Effect Report <input type="checkbox"/> No Historic Properties Affected <input type="checkbox"/> No Adverse Effect <input type="checkbox"/> Adverse Effect
Prehistoric Archaeology	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Historic Archaeology	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Historic Structure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Historic District	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Historic Transportation Corridor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Remarks: This project would fall under the Programmatic Agreement between the Pennsylvania Turnpike Commission and the Pennsylvania Historical and Museum Commission Bureau for Historic Preservation regarding the Pennsylvania Turnpike Capital Plan executed in March 2017 (Attached). All work will be conducted within the operational existing limited access right-of-way and the paved areas of the deceleration and acceleration ramps and parking areas of the plazas.

Include Section 106 Public Involvement in Part B, Section C, Public Involvement.

ADDITIONAL INFORMATION

Remarks, footnotes, supplemental data:

One of the first five document types MUST be checked and attached to show that Section 106 coordination has been completed. Other types of documentation should be checked and attached when appropriate.

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5. SECTION 4(f) RESOURCES

- 1 If the resource is present but no use is anticipated, describe in Remarks or on attached sheet(s) why there will be no use.
- 2 Describe the use in Remarks or attached sheet(s).
- 3 Unless otherwise noted, documentation for subject areas should be maintained in the project's Technical Support Data and does not need to be submitted with the CEE.

	<u>PRESENCE</u>		<u>USE</u>		<u>DOCUMENTATION</u> ³
	Not Present	Present	No ¹	Yes ²	
SECTION 4(f) RESOURCES	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Individual Section 4(f) Eval. (ATTACH APPROVED DOCUMENT) <input type="checkbox"/> Programmatic Section 4(f) Eval. (ATTACH DOCUMENT) <input type="checkbox"/> Section 2002 Evaluation (ATTACH APPROVED DOCUMENT) <input type="checkbox"/> De Minimis Use/No Adverse Use Checklist (ATTACH DOCUMENT) <input type="checkbox"/> Non-Applicability/No Use Checklist <input type="checkbox"/> Temporary Use Checklist <input type="checkbox"/> FHWA Coordination Documents (ATTACH DOCUMENT)

Remarks: This project would fall under the Programmatic Agreement between the Pennsylvania Turnpike Commission and the Pennsylvania Historical and Museum Commission Bureau for Historic Preservation regarding the Pennsylvania Turnpike Capital Plan executed in March 2017. All work will be conducted within the operational existing limited access right-of-way and the paved areas of the deceleration and acceleration ramps and parking areas of the plazas. There are no parks or recreational facilities within the existing operational right-of-way of the Pennsylvania Turnpike.

Will temporary easements during construction be necessary for potential Section 4(f) resources?
 If "Yes", provide description. Yes No

ADDITIONAL INFORMATION

Remarks, footnotes, supplemental data:

6. AIR QUALITY AND NOISE

AIR QUALITY

Is the project exempt from Regional Ozone Conformity Analysis and CO, PM10, & PM2.5 Hot Spot analysis? Yes No

(See exempt project list in Air Quality Handbook, Pub #321)
 • If "Yes", skip the remainder of the AIR QUALITY section of the CEE FORM.

Is the project in an air quality nonattainment or maintenance area? Yes No
 (Refer to DEP's Bureau of Air Quality Attainment Status Maps.)

• If "No", skip Regional Conformity section and go to Project Level Impacts for Carbon Monoxide.

• If "Yes", for what pollutant? Ozone CO PM10 PM2.5

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Regional Conformity

Is the project exempt from a regional conformity air quality analysis? Yes No
 (See exempt project list in Air Quality Handbook, Pub #321)

- If "Yes", go to Project Level Impacts for CO and PM2.5/PM10 Sections.
- If "No", was it included in the most recent regional conformity air quality analysis? Yes No
 - If "Yes", go to Project Level Impacts for CO and PM2.5/PM10 Sections.
 - If "No", consult with District Air Quality Coordinator.

Project Level Impacts for Carbon Monoxide (CO)

Are there any sensitive receptors located within the project area? Yes No
 (Sensitive receptors = Schools, Churches, Residences, Apartments, Hospitals, etc.)

- If "No", skip the remainder of this section.

Based on similar projects in similar settings, will there be any negative air quality impacts? Yes No

- If "Yes", complete a quantitative or qualitative analysis of air quality impacts. Quantitative Analysis
 Use currently approved Air Quality model. Conclusions of the analysis should be Qualitative Analysis
 provided in Air Quality Remarks below, and the full analysis should be
 maintained in the project technical file.

Project Level Impacts for Particulate Matter (PM2.5 or PM10)

Is the project of air quality concern? No – Based on PennDOT Screening Document
 No – Based on Interagency Consultation
 Yes – Based on Interagency Consultation

- If "Yes", has a Qualitative Hot-Spot Analysis been completed for the project? Yes No N/A
- If "Yes", has the Qualitative Hot-Spot Analysis undergone public review? Yes No N/A

Remarks:

NOISE

1. Is the project a:

(Reference PennDOT Publication #24 for additional information on Type I, Type II, and other projects.)

A. Type I Project? Yes No

Indicate the applicable construction type

- Highway on new alignment
- Through lanes that increase capacity
- Significant change in the horizontal or vertical alignment
- Other (Describe) _____

(If "Yes", go to Question 2. If "No", go to Question 1B)

B. Type II Project? Yes No

(If "Yes", go to Question 2. If "No", go to Question 1C)

The project consists of the installation of ITS devices to alleviate truck parking. The project does not involve added capacity, construction of new through lanes or auxiliary lanes, changes in the horizontal or

C. Other? vertical alignment of the roadway, or exposure of noise sensitive land Yes No

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uses to a new or existing highway noise source.

(If 1C is "Yes", enter the type of project on the blank line above, answer question 2, skip question 3 and provide any additional comments in the Remarks section. The Remarks section should discuss the scope of work and how it relates to the existing and future noise environment, as well as the potential noise impacts. Potential types of projects that may be listed as "other" include but are not limited to rehabilitation of an existing highway, in place bridge replacement/rehabilitation, etc.)

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2. A. Are sensitive receptors present?

Yes No

- If "No", skip questions 2B and 3, and provide any additional comments in the Remarks section.
- If "Yes", how many noise sensitive receptors are within the project area?
- If "Yes", what type(s) of sensitive receptors are present?

B. What Land Use Activity Category is present in the project area as defined by PennDOT Publication #24? (Due to potential mixed land uses, there could be several categories) ___A ___B ___C ___D ___E

3. A. Do the predicted noise levels approach or exceed FHWA/PennDOT Noise Abatement Criteria for the Land Use Activity Category(s) identified in 2B?

Yes No

B. Will there be a substantial increase of 10 dB(A) over existing levels?

- If both 3A and 3B are "No", provide a qualitative (narrative) analysis in the Remarks section.
- If 3A or 3B is "Yes", provide the conclusion of the quantitative analysis in Noise Remarks below. The full quantitative analysis should be maintained in the project technical file.

Yes No
 Qualitative Analysis
 Quantitative Analysis

Remarks:

ADDITIONAL INFORMATION

Remarks, footnotes, supplemental data:

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7. SOCIOECONOMIC AREAS

REGIONAL & COMMUNITY GROWTH

Will the project induce impacts (positive and negative) on planned growth, land use, or development patterns for the area? Yes No

If "Yes", explain.

The purpose for the installation of the ITS detection equipment is to monitor truck traffic into and out of the service plaza compared to the availability of truck parking, and communicate that availability to trucks using the turnpike. The ITS system is intended to alleviate the truck parking issues experienced across the turnpike.

Is the project consistent with planned growth? Yes No

Basis of this determination: Improvement of the utilization of the Pennsylvania Turnpike is an improvement project. Improvement projects are typically consistent with planned growth.

Will the project induce secondary growth? Yes No

If "Yes", explain.

PUBLIC FACILITIES & SERVICES

Will the project induce negative impacts on health and educational facilities; public utilities; fire, police and emergency services; civil defense; religious institutions; or public transportation? Yes No

If "Yes", explain.

Does the project incorporate bicycle or pedestrian facilities into the overall design or operations (including construction)? Yes No

Explain.

Bicycle and pedestrian use is not legal on the Pennsylvania Turnpike, a limited access highway.

NOTE: Attach the bicycle/pedestrian checklist if completed for this project.

Will the project have a positive impact to the public facilities and services listed above? Yes No

If "Yes", explain.

COMMUNITY COHESION

Will the project induce impacts to community cohesion? Yes No

If "Yes", explain.

Will the project induce impacts to the local tax base or property values? Yes No

If "Yes", explain.

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ENVIRONMENTAL JUSTICE

Will the project induce disproportionately high and adverse impacts to minority, low income, or special groups? Yes No
If "Yes", explain.

DISPLACEMENT OF PEOPLE, BUSINESS or FARMS

Will the project require the relocation of people, businesses or farms? Yes No
If "Yes", indicate number _____ Residential _____ Commercial _____ Farms

If there are residential displacements, attach a brief discussion of replacement housing availability.
 Conceptual Stage Survey Report (ATTACH TO THE CEE)

Will the project induce impacts to economic activity, including employment gains and losses? Yes No
If "Yes", explain.

MAINTENANCE AND OPERATING COSTS OF THE PROJECT AND RELATED FACILITIES

Will the project induce increases of operating or maintenance costs? Yes No
If "Yes", is the cost justified? Please explain:
There will be some maintenance of the ITS devices, but alleviation of parking issues on the Pennsylvania Turnpike justifies the minor increase in cost.

PUBLIC CONTROVERSY ON ENVIRONMENTAL GROUNDS

Will the project involve substantial controversy concerning social, cultural, or natural resource impacts? Yes No
If "Yes", explain.

AESTHETIC AND OTHER VALUES

Will the project be visually intrusive to the surrounding environment? Yes No
If "Yes", explain.

Will the project include "multiple use" opportunities?¹ Yes No
If "Yes", explain.

Will the project involve "joint development" activities?² Yes No
If "Yes", explain.

1 Examples of "multiple use" may include historical monuments, parking areas, bikeways, pedestrian paths, and other shared-use facilities on highway right-of-way.

2 "Joint Development" involves compatible development in conjunction with the highway. Examples could include construction of highway facilities such as highways, turning lanes, interchanges, or lane widening in conjunction with planned residential, shopping, commercial, or industrial facilities.

ADDITIONAL INFORMATION

Remarks, footnotes, supplemental data:

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8. TEMPORARY IMPACTS

TEMPORARY IMPACTS TO RESOURCES	<u>IMPACTS</u>			<u>IMPACTS</u>	
	No	Yes		No	Yes
Air Quality	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Wetlands	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Noise Levels	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Agricultural Resources	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Water Quality	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Other	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Soil Erosion & Sedimentation	<input checked="" type="checkbox"/>	<input type="checkbox"/>			

Remarks: All work will be in existing pavement. There will be no earth disturbance.

ADDITIONAL INFORMATION

Remarks, footnotes, supplemental data:

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- Scoping Field View Documentation
- Categorical Exclusion Evaluation
- Reevaluation

Date: 8/1/2019

Section B – Consistency Determinations

If the project is consistent with established guidelines, check the appropriate box. If the project is not consistent, describe mitigation measures.

	<u>NOT APPLICABLE</u>	<u>CONSISTENT</u>	<u>NOT CONSISTENT</u>
DEP Coastal Zone Management Plan	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
DCNR/NPS Wild and Scenic River Management Plan	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
FEMA Flood Map	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (Describe in Remarks)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Remarks:

Mitigation Measures

ADDITIONAL INFORMATION

Remarks, footnotes, supplemental data:

Section C – Public Involvement

Document all public involvement efforts, including but not limited to, meetings, intent to enter letters, and displays. Indicate number of events when applicable.

- Plans Display (#)
- Public Officials Meetings (#)
- Public Meetings (#)
- Public Hearing
- Special Purpose Meetings (#), specify:
- Section 106 Public Involvement/Consulting Parties, specify:
- Section 106 Tribal Consultation (specify Tribe(s) contacted (#), and tribal response):
- Environmental Justice Community Involvement (if applicable):
- Other information dissemination activities, specify:

Remarks: Public involvement is not anticipated since all work is within the paved area of the service plazas and the deceleration and acceleration lanes to and from the plazas.

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- Reevaluation

Date: 8/1/2019

ADDITIONAL INFORMATION

Remarks, footnotes, supplemental data:

Check all permits required for permanent and temporary actions.

Section D – Permits Checklist

- No Permits Required
- Army Corps of Engineers Section 404 and/or Section 10 Permit:
 - Individual Nationwide PASPGP
- DEP Waterway Encroachment (105) Permit
 - Standard Small Project General Other (Specify)
- DEP 401 Water Quality Certification
- Coast Guard Permit
- NPDES Permit
 - General Individual Exempt
- Other Permits (Specify)

Other Permits Information

ADDITIONAL INFORMATION

Remarks, footnotes, supplemental data:

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- Reevaluation

Date: 8/1/2019

Section E – Resources to Be Avoided and Mitigation Measures

Specify and define mitigation measures that will become a part of the proposed project. Provide a general description of resources which exist within the limits of work or are adjacent to the project that are to be avoided during construction. Note the approximate location of these resources. Attach additional sheets if necessary. The mitigation measures stated in this section should be incorporated into the project's design documents. In order to track and transfer mitigation commitments through the project development process, Environmental Commitments and Mitigation Tracking System (ECMTS) documentation should be prepared and submitted to the appropriate channels, including the Contract Management Unit, as the project moves through Final Design and Construction.

Mitigation measures are COMMITMENTS of both the Department and FHWA and are agreed to and approved by the District Executive for Level 1 CEEs and by the Division Administrator of FHWA for Level 2 CEEs.

NOTE: Impacts and mitigation commitments are based on Preliminary Design and may change as the project moves through Final Design and Construction. Final Design information and final mitigation commitments are included in the ECMTS documentation.

1. Impacts

Wetlands: acres
Streams: linear feet
State Gamelands: acres

NOTE: This data should be consistent with related information on Part B, Section A-1 and A-2.

Remarks:

2. Specific Mitigation Commitments

	Project Specific	Advanced Compensation
Wetlands Replacement/Construction:	acres	acres
Wetlands Preservation:	acres	acres
Stream Channel Restoration/Enhancement:	linear feet	linear feet
State Gameland Replacement/Enhancement	acres	acres

Remarks: There will be no impacts to either streams or wetlands due to project implementation. All work will be done within the paved areas of the plazas and the decel and accel lanes.

Allentown Service Plaza: There will be no work in Cedar Creek or its unnamed tributaries from October 1 through April 1.

Hickory Run Service Plaza: There will be no work in the UNT to Yellow Run or the UNT to Stony Creek from October 1 through April 1.

3. Other Mitigation Commitments

1. Land-use restrictions imposed by an environmental covenant must be followed for the Oakmont Service Plaza. The restrictions regarding impacted site soils include A.) Impacted soil will remain capped and the cap shall remain in good repair; B.) Should any work require removal of the cap covering the impacted soil, the cap shall immediately be repaired upon completion of work; C.) If excavation of the impacted soils is proposed, all impacted soils encountered will be properly managed and/or disposed in accordance with all applicable federal, state, and local statutes, regulations, and ordinances; 4.) Groundwater within the modeled plume may not be used. A copy of the environmental covenant will be supplied to

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Date: 8/1/2019

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the contractor detailing the land-use restrictions and areas of the property subject to the conditions of the covenant.

2. Land-use restrictions imposed by an environmental covenant must be followed for the North Somerset Service Plaza. The restrictions regarding impacted site soils include A.) The protected pavement and soil cover overlying contaminated soils within the land use restricted area must be maintained. Any excavation of the approved cover is not allowed without prior written notice and plan submitted to the Pennsylvania Department of Environmental Protection (PADEP) for approval. This includes a schedule of implementation setting forth worker health and safety requirements, access limitations during excavation, and restoration of the cap or other alternatives that are approved by the PADEP in writing; C.) Any soils or materials removed from within the subject protective cover (where the cover is breached) must meet applicable statewide health standards or numeric based site specific standards approved by PADEP in writing and all applicable federal, state, and local laws, regulations and ordinances pertaining to the environment and occupational safety; or be covered with materials that eliminate the pathway of exposure to the underlying contamination and is capable of physically supporting the intended use of the subject area. Such alternative cover shall be placed on the subject area within such period of time as set forth in the worker health and occupational safety plan approved by PADEP; D.) All excavated materials removed from the land-use restricted area shall be managed, transported, and disposed of in compliance with all applicable federal, state, and local laws, regulations, and ordinances, including, without limitation, those pertaining to environmental protection and occupational safety; E.) Groundwater use at the North Somerset Service Plaza is prohibited. A copy of the environmental covenant will be supplied to the contractor detailing the land-use restrictions and areas of the property subject to the conditions of the covenant.

3. Land-use restrictions imposed by an environmental covenant must be followed for the North Midway Service Plaza. The impacted site soils restrictions includes all excavated materials removed from the restricted area of the site shall be managed, transported, and disposed of in accordance with all applicable federal, state, and local statutes, regulations, and ordinances. A copy of the environmental covenant will be supplied to the contractor detailing the land-use restrictions and areas of the property subject to the conditions of the covenant.

4. Land-use restrictions imposed by an environmental covenant must be followed for the Sideling Hill Service Plaza. The restrictions regarding impacted site soils include: A.) The protective pavement and soil cover overlying contaminated soils within the land-use restricted area of the property must be maintained. Any excavation of the approved cover is not allowed without prior written notice and plan submitted to the PADEP for approval. This includes a schedule of implementation setting forth worker health and safety requirements, access limitations during excavation, and restoration of the cap or other alternatives that are approved by the PADEP in writing; B.) Any soils or materials removed from within the subject protective cover (where the cover is breached) must meet applicable statewide health standards or numeric based site specific standards approved by the PADEP in writing, or be covered with materials that eliminate the pathway of exposure to the underlying contamination and is capable of physically supporting the intended use of the subject area; C.) All excavated materials removed from the land-use restricted area shall be managed, transported, and disposed of in compliance with all applicable federal, state, and local laws, regulations, and ordinances. A copy of the environmental covenant will be supplied to the contractor detailing the land-use restrictions and areas of the property subject to the conditions of the covenant.

5. Land-use restrictions imposed by an environmental covenant must be followed for the Highspire Service Plaza. The restrictions regarding impacted site soils include: A.) Impacted

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soil shall remain capped, with the cap being maintained in good repair; B.) Any work requiring the removal of the cap covering impacted soil shall be immediately repaired upon completion of work; C.) Any impacted soil excavated from the area covered by the cap shall be handled properly pursuant to the PADEP Management of Fill Policy; D.) Groundwater at the property may not be used for any purpose. A copy of the environmental covenant will be supplied to the contractor detailing the land-use restrictions and areas of the property subject to the conditions of the covenant.

6. Land-use restrictions imposed by an environmental covenant must be followed for the Lawn Service Plaza. The restriction regarding impacted site groundwater includes maintaining the operation of the point-of-entry system for the potable water supply. A copy of the environmental covenant will be supplied to the contractor detailing the land-use restrictions and areas of the property subject to the conditions of the covenant.

7. Land-use restrictions imposed by an environmental covenant must be followed for the Peter J. Camiel Service Plaza. The restrictions regarding impacted site soils include: A.) Impacted soil shall remain capped, with the cap being maintained; B.) Any work requiring the excavation and removal of impacted soil shall be properly disposed of; C.) Groundwater within the modeled plume may not be used. A copy of the environmental covenant will be supplied to the contractor detailing the land-use restrictions and areas of the property subject to the conditions of the covenant.

8. Land-use restrictions imposed by an environmental covenant must be followed for the Allentown Service Plaza. The restrictions regarding impacted site soils include: A.) Impacted soil shall remain capped, with the cap being maintained in good repair; B.) Any work requiring the removal of the cap covering impacted soil shall be immediately repaired upon completion of work; C.) Any impacted soil excavated from the area covered by the cap shall be handled properly pursuant to the PADEP Management of Fill Policy; D.) Groundwater at the property may not be used for any purpose (other than the existing potable supply well). A copy of the environmental covenant will be supplied to the contractor detailing the land-use restrictions and areas of the property subject to the conditions of the covenant.

9. Land-use restrictions imposed by an environmental covenant must be followed for the Hickory Run Service Plaza. The restriction regarding impacted site groundwater includes no additional uses of groundwater at or under the property (other than the existing potable water supply well). A copy of the environmental covenant will be supplied to the contractor detailing the land-use restrictions and areas of the property subject to the conditions of the covenant.

10. Valley Forge Service Plaza: Do not conduct this project/activity within 50 feet of any streams, rivers, creeks, or tributaries. This includes both perennial and intermittent waterways.

11. Coordination with the USFWS and possibly a Phase I Bog Habitat Survey will be conducted for Blue Mountain, Cumberland Valley, King of Prussia, and Allentown only if a Chapter 105 permit is required.

ADDITIONAL INFORMATION

Remarks, footnotes, supplemental data:

As completed, this page is part of:

- Scoping Field View Documentation
- Categorical Exclusion Evaluation
- Reevaluation

Date: 8/1/2019

Section F – Scoping Field View

Date of Scoping Field View: April 8, 2019

Attendee List:

Name	Organization
Drew Ames	PennDOT, Central Office
Brian Shunk	PennDOT, Central Office
Andrew Lutz	Pennsylvania Turnpike Commission
Peter Dodds	A.D. Marble

Anticipated NEPA Documentation:

As supported by the information available at the time of scoping, this project appears to quality for a Level 1a Categorical Exclusion in accordance with 23 CFR Part 771.117(d), Item No. 21 and 22 as published in the August 28, 1987 Federal Register.

Provide a brief description of NEPA documentation requirements agreed to at the field view.

Remarks: The purpose of the meeting was to review the proposed Pennsylvania Turnpike Commission installation of ITS devices at Turnpike Service Plazas as part of their Truck Management Parking System.

1. Andy Lutz provided an overview of the project. The project will involve the installation of sensors, “magnetometer pucks” within the pavement of the decel and accel lanes into and out of the service plazas to count trucks utilizing the plaza. Closed Circuit Cameras (CCTV) will also be mounted on existing poles or new poles within the plaza to validate the number of trucks using the plaza. The count will be compared to the parking capacity of the plaza and availability of parking spaces will be determined. The availability is then communicated to trucks on the Turnpike. The installation of the ITS devices will be within the operational right-of-way of the Turnpike, primarily within the paved areas of the decel and accel lanes and of the plazas. This is a Design-Build (DB) project.

2. Pete indicated that we will be evaluating seventeen (17) service plazas on the Turnpike. A study area of 30 feet offset from the paved areas along the decel and accel lanes as well as the plaza proper will be utilized. The work will include field work for wetlands and streams, PNDI searches for Threatened and Endangered species and

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CEE Form

Pennsylvania Department of Transportation

Revised January 2009

PTC ITS Project CE 1a -- Part B-Revised

Release 28.0

hazardous waste database searches for the plazas. Information collected for the Turnpike's P3 Fiber Optic project will be utilized where possible. The cultural resources will fall under the PA.

3. Drew indicated one CE1A document will be used for all the plazas with attached spreadsheets for resources. It will be categorically excluded under CE Actions #21 and #22. It will be submitted to PennDOT as a paper copy, ie word file or pdf rather than use the CE Expert system. There will be no MPMS# for the CE but one may be needed for the funding.

4. Brian asked how the project will be funded. Andy explained that although he doesn't have the details at this time the project will receive federal funding. Andy did mention that the projects will be phased regarding the funding and construction. Brian and Drew said we would need to mention the phasing in the CE and that future funding will be available for the future phases. If there is a need, a reevaluation of the CE can be prepared.

5. Pete asked whether scoping forms will be required. Drew said the minutes from today's meeting will suffice and to attach them to the CE.

6. An aerial photo drive through of each of the service plazas was conducted. Discussion points are below:

a. Oakmont: No comments.

b. New Stanton: Drew noted that there appears to be drainage west of the plaza and between the decel lane and the truck parking area. It also appears to be SWM in this area.

c. South Somerset: No comments other than a note about a SWM basin.

d. North Somerset: There is a large truck parking area on the east side of the plaza. We need to be sure to include that in the study. There appears to be some drainage in that area although it looks like it maybe storm water related. Drew asked if they had to install a pole for the CCTV where would they be located in the plazas? Would they use the employee parking areas for a pole? Andy indicated that since this is DB project, the exact location has not been defined. However, the PTC can direct the DB team that there will be no construction in wetlands and streams. This would be included as a commitment in the CE1A. Regarding the use of the employee parking areas, Andy will need to check.

e. North and South Midway: No comments.

f. Sideling Hill: No comments.

g. Blue Mountain: Drew noted that there may be drainage just past the water treatment facility and along the forested edge near the decel lane.

h. Cumberland Valley (formerly Plainfield): The cemetery near the property line was noted. No other comments.

i. Highspire: No comments.

j. Lawn: The Lawn Service Plaza will include an ITS sign. Andy explained that they have a separate project currently underway to expand truck parking capacity. It is not receiving federal funds. Studies were already completed for this project. Andy will provide A.D. Marble with information from the previous work.

k. Bowmansville: It was noted that on the west side of the plaza there is a potential stream.

l. P.J. Camiel: There are wetlands that surround the right-of way for the plaza.

m. Valley Forge: No comments.

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- Reevaluation

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CEE Form

Pennsylvania Department of Transportation

Revised January 2009

PTC ITS Project CE 1a -- Part B-Revised

Release 28.0

n. King of Prussia: No comments.

o. Allentown: Check what appears to be an extra right-of-way line on the sample graphic. Note: It was checked after the meeting and the line was the centerline of the access road.

p. Hickory Run: No comments.

7. Drew asked whether E&SC plans will be needed for the installation of the "pucks". Andy said he would need to check.

8. It is anticipated that the CE1A will be submitted to PennDOT at the end of May 2019.

9. NOTE: A follow-up call to Drew determined that there will be no need to submit an Aquatic Resources report. The boundaries of any wetlands and streams found within the 30 foot study area will be plotted onto the resource mapping that will accompany the CE1A.

As completed, this page is part of:

- Scoping Field View Documentation
- Categorical Exclusion Evaluation
- Reevaluation

Date: 8/1/2019

Part C – CEE Approval Processing

Section A – Level 1a Approval and Design Approval

This project is appropriate to be described by Item Number 21 and 22 of Table 1 in Publication 294, Categorical Exclusion Evaluation handbook, and is appropriate for a Level 1a Categorical Exclusion in accordance with 23 CFR 771.117 as published in the August 28, 1987 Federal Register.

Prepared by: Cathy Kisenwether
Title: Senior Environmental Specialist

Date: August 1, 2019

Concurred by:

Drew Ames 8/1/19
PennDOT Environmental Manager Date

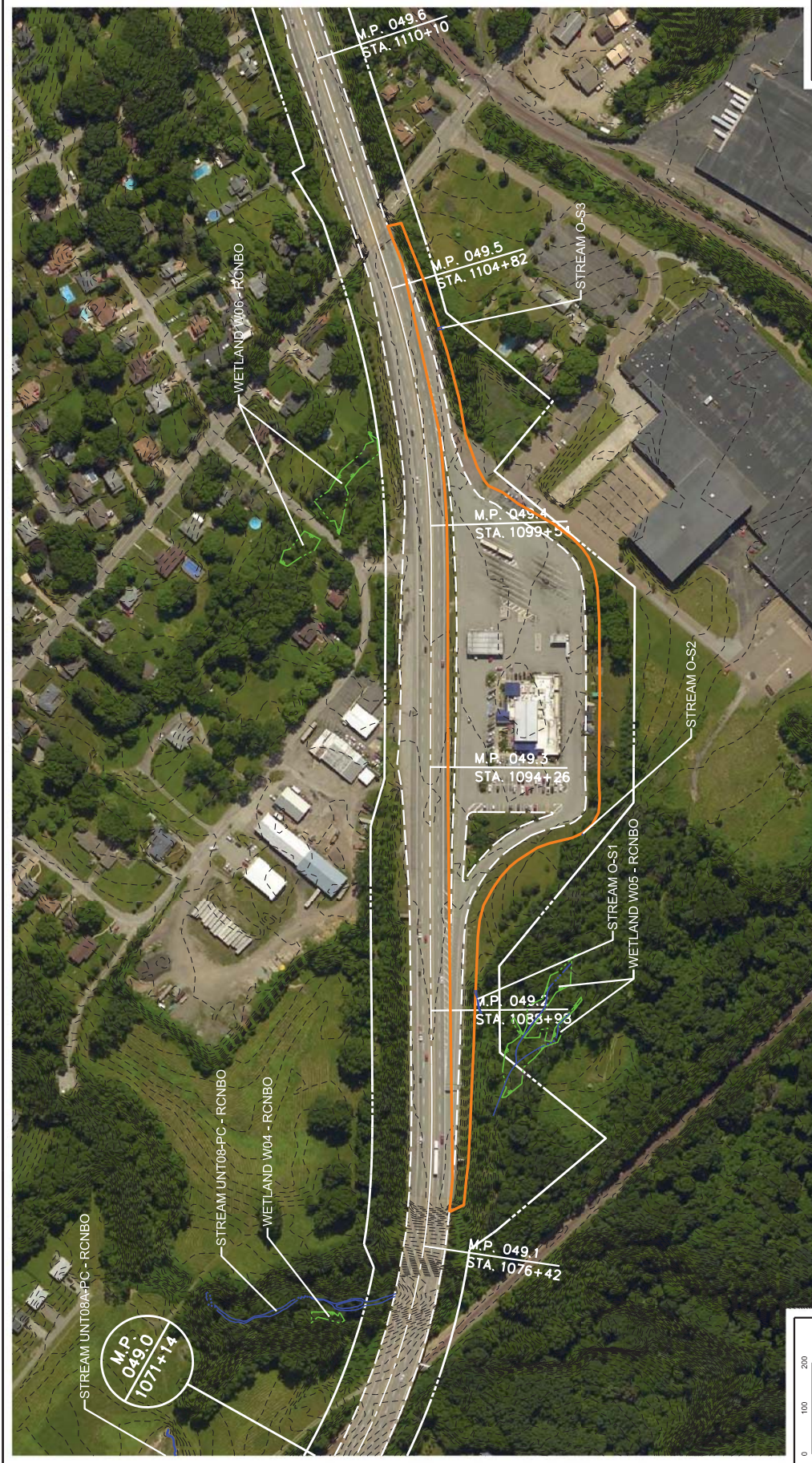
Approved by:

Cynthia A. [Signature] 8/2/19
Federal Highways Administration Date

As completed, this page is part of:

Categorical Exclusion Evaluation
Reevaluation

Date: 8/1/2019



SHEET 1 OF 1	
WETLAND AND WATERWAY MAPPING	
PENNSYLVANIA TURNPIKE I.T.S. PROJECT - OAKMONT SERVICE PLAZA	
DISTRICT: 11	COUNTY: ALLEGHENY
TOWNSHIP / BOROUGH: PLUM	

OPERATIONAL EXISTING RIGHT-OF-WAY
 EXISTING EDGE OF ROADWAY SHOULDER
 EXISTING CONTOUR
 RECONSTRUCTION BY OTHERS
RCNBO

STREAM BOUNDARY
 WETLAND BOUNDARY
 PROJECT STUDY AREA (PSA)



WETLAND AND WATERWAY MAPPING
PENNSYLVANIA TURNPIKE I.T.S. PROJECT - NEW STANTON SERVICE PLAZA

DISTRICT: 12 COUNTY: WESTMORELAND
 TOWNSHIP / BOROUGH: HEMPFIELD

SHEET 1 OF 2

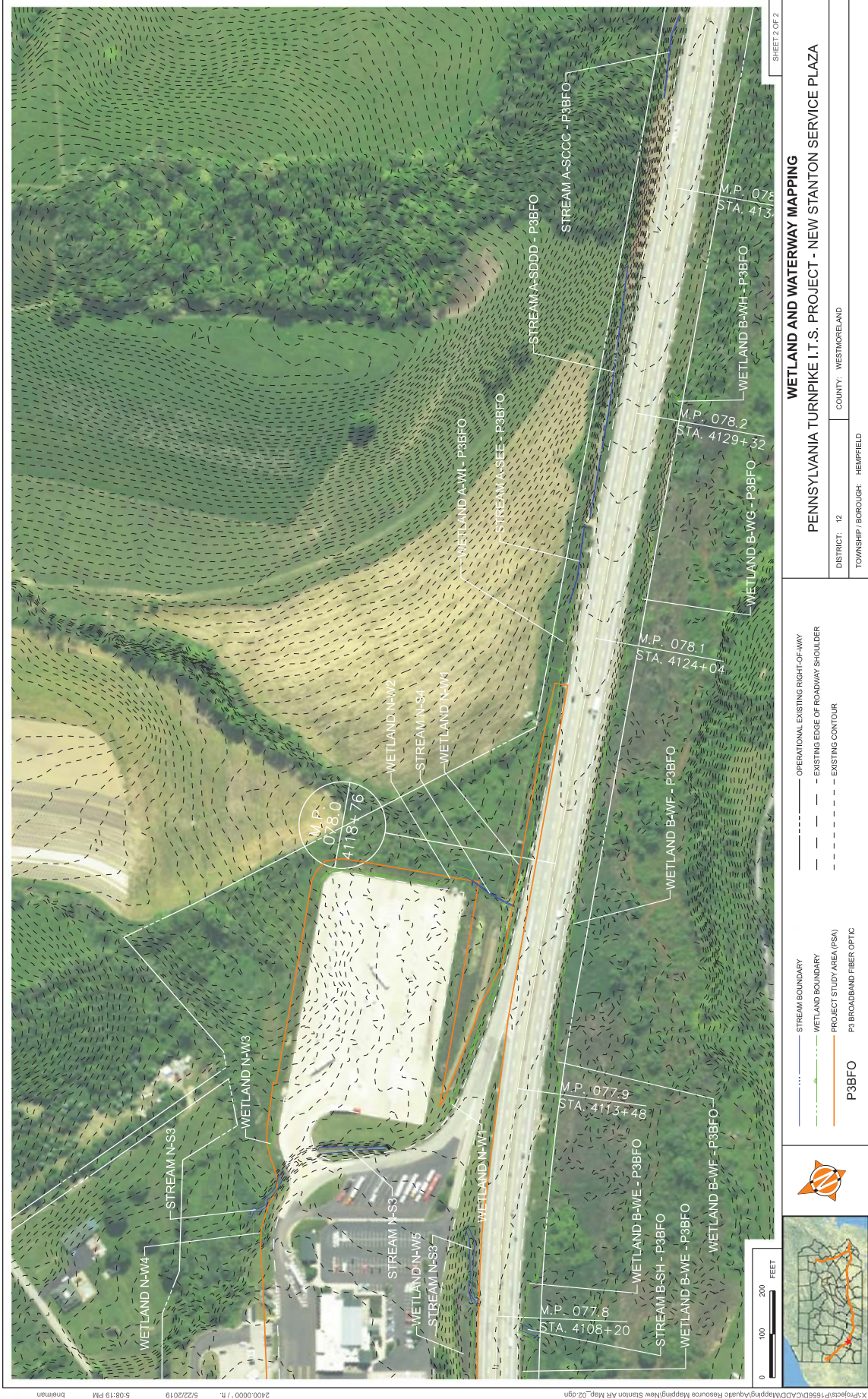
PREPARED BY A.D. MARBLE, 5/13/2019



- OPERATIONAL EXISTING RIGHT-OF-WAY
- - - EXISTING EDGE OF ROADWAY SHOULDER
- - - EXISTING CONTOUR

- STREAM BOUNDARY
- WETLAND BOUNDARY
- PROJECT STUDY AREA (PSA)
- P3 BROADBAND FIBER OPTIC

P3BFO



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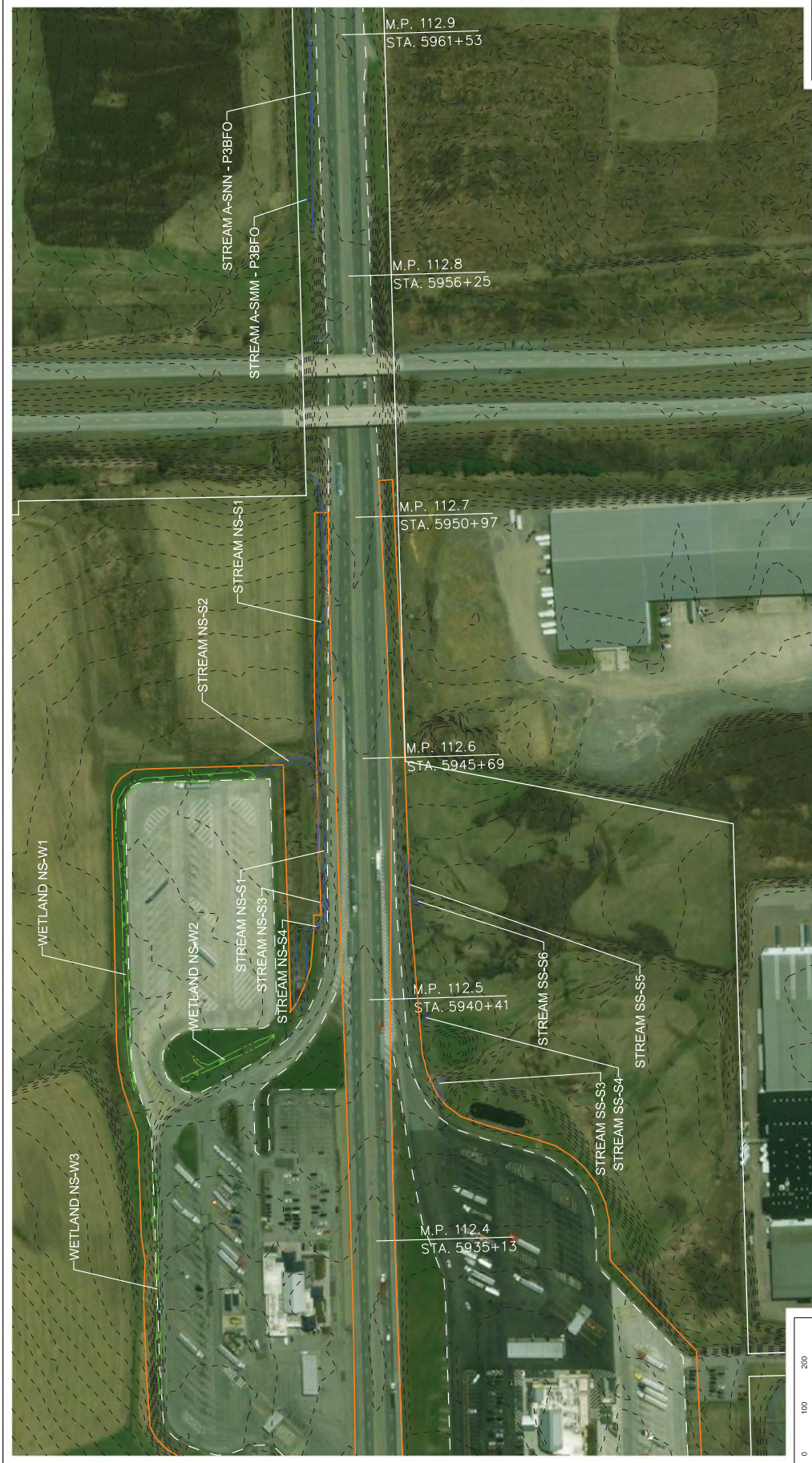


SHEET 1 OF 2	
WETLAND AND WATERWAY MAPPING	
PENNSYLVANIA TURNPIKE I.T.S. PROJECT - SOMERSET SERVICE PLAZA	
DISTRICT: 9	COUNTY: SOMERSET
TOWNSHIP / BOROUGH: SOMERSET	

- OPERATIONAL EXISTING RIGHT-OF-WAY
- EXISTING EDGE OF ROADWAY SHOULDER
- EXISTING CONTOUR

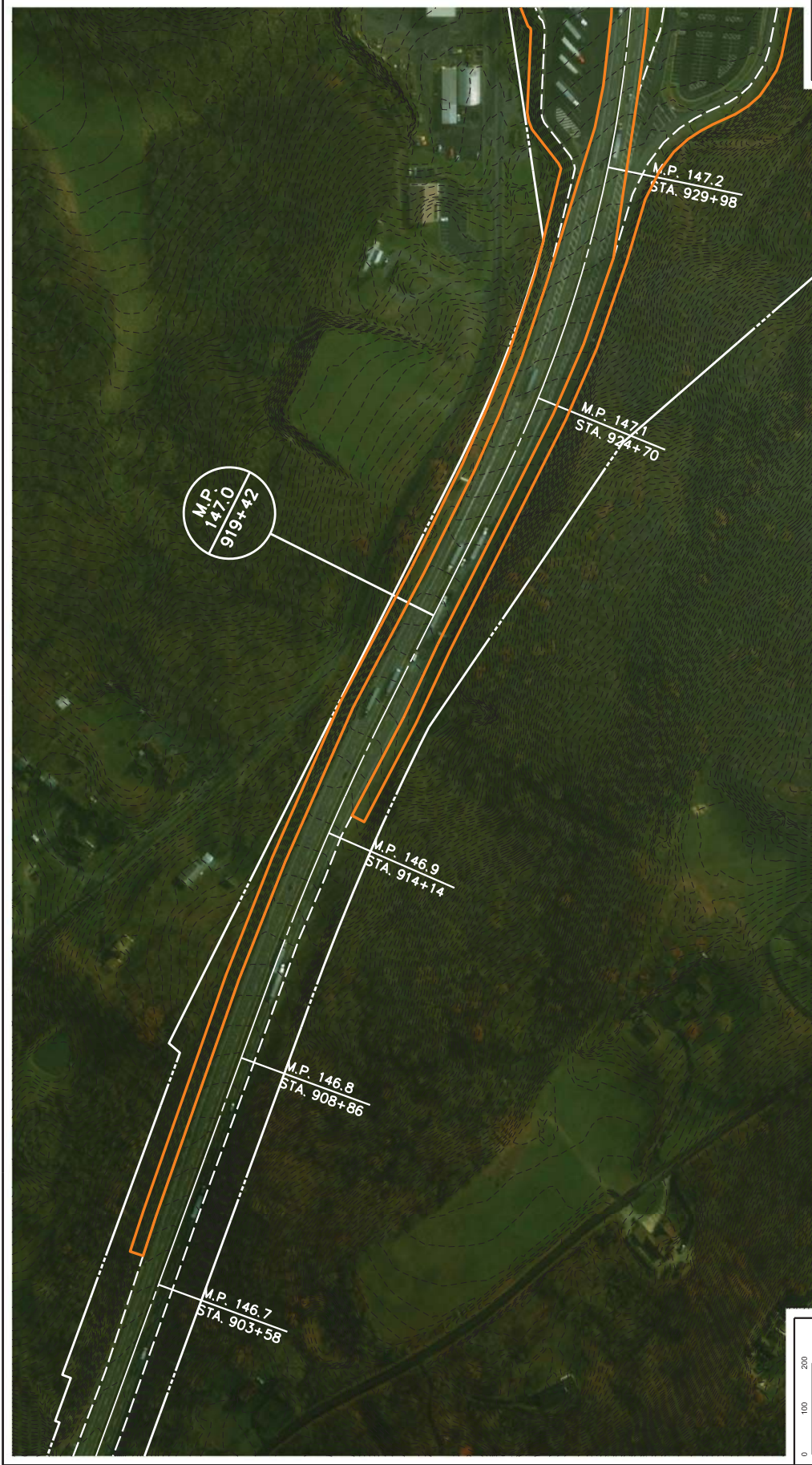
- STREAM BOUNDARY
- WETLAND BOUNDARY
- PROJECT STUDY AREA (PSA)
- P3 BROADBAND FIBER OPTIC

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STA. 5914+02



SHEET 2 OF 2	
WETLAND AND WATERWAY MAPPING	
PENNSYLVANIA TURNPIKE I.T.S. PROJECT - SOMERSET SERVICE PLAZA	
DISTRICT: 9	COUNTY: SOMERSET
TOWNSHIP / BOROUGH: SOMERSET	

--- STREAM BOUNDARY
--- WETLAND BOUNDARY
--- PROJECT STUDY AREA (PSA)
--- P3 BROADBAND FIBER OPTIC
--- OPERATIONAL EXISTING RIGHT-OF-WAY
--- EXISTING EDGE OF ROADWAY SHOULDER
--- EXISTING CONTOUR



SHEET 1 OF 2	
WETLAND AND WATERWAY MAPPING	
PENNSYLVANIA TURNPIKE I.T.S. PROJECT - MIDWAY SERVICE PLAZA	
DISTRICT: 9	COUNTY: BEDFORD
TOWNSHIP / BOROUGH: BEDFORD	

	STREAM BOUNDARY
	WETLAND BOUNDARY
	PROJECT STUDY AREA (PSA)
	OPERATIONAL EXISTING RIGHT-OF-WAY
	EXISTING EDGE OF ROADWAY SHOULDER
	EXISTING CONTOUR



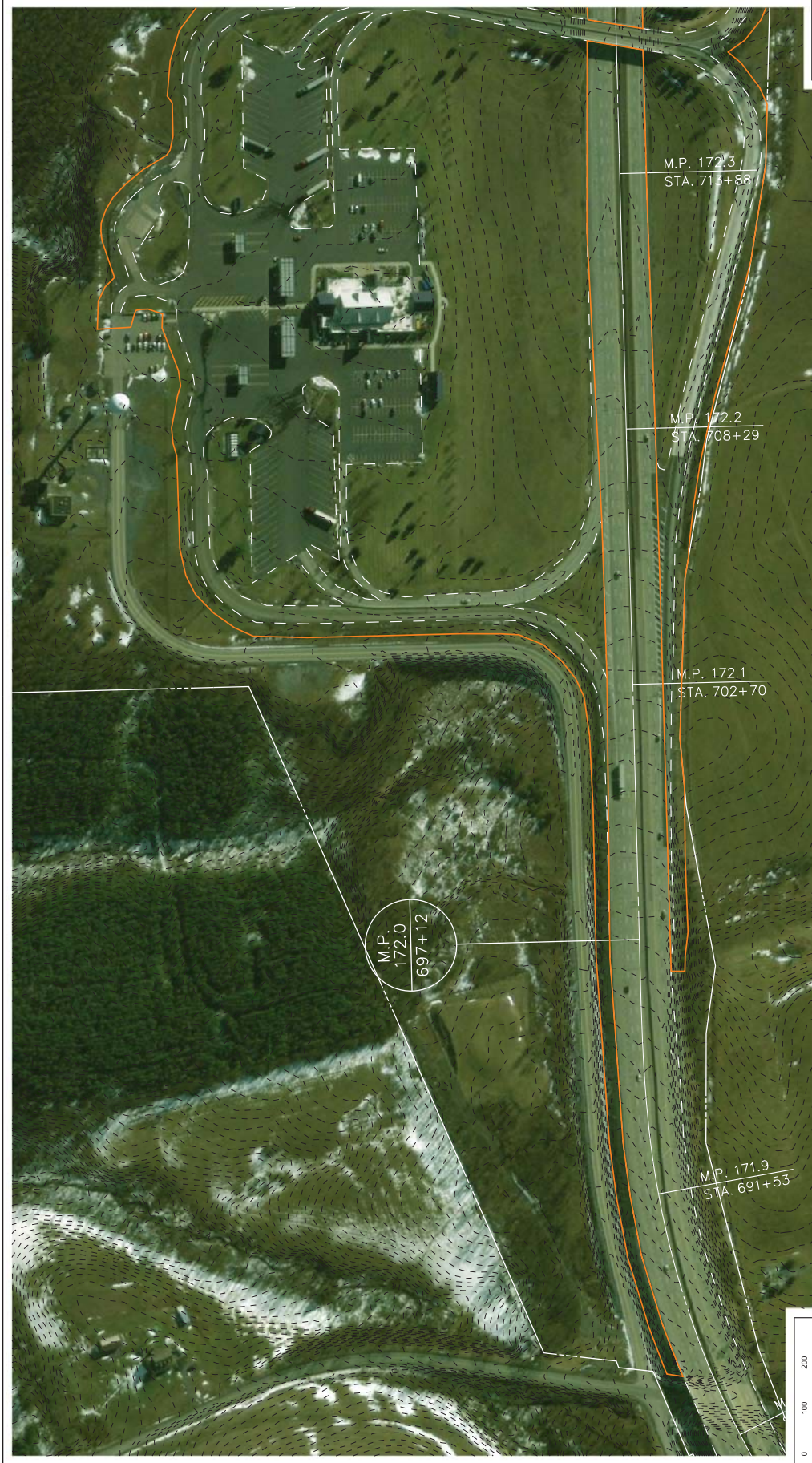


SHEET 2 OF 2	
WETLAND AND WATERWAY MAPPING	
PENNSYLVANIA TURNPIKE I.T.S. PROJECT - MIDWAY SERVICE PLAZA	
DISTRICT: 9	COUNTY: BEDFORD
TOWNSHIP / BOROUGH: BEDFORD	

- OPERATIONAL EXISTING RIGHT-OF-WAY
- EXISTING EDGE OF ROADWAY SHOULDER
- EXISTING CONTOUR

- STREAM BOUNDARY
- WETLAND BOUNDARY
- PROJECT STUDY AREA (PSA)





SHEET 1 OF 2

WETLAND AND WATERWAY MAPPING
PENNSYLVANIA TURNPIKE I.T.S. PROJECT - SIDELING HILL SERVICE PLAZA

DISTRICT: 9	COUNTY: FULTON
TOWNSHIP / BOROUGH: TAYLOR	

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SHEET 2 OF 2

WETLAND AND WATERWAY MAPPING
PENNSYLVANIA TURNPIKE I.T.S. PROJECT - SIDELING HILL SERVICE PLAZA

DISTRICT: 9	COUNTY: FULTON
TOWNSHIP / BOROUGH: TAYLOR	

--- STREAM BOUNDARY
--- WETLAND BOUNDARY
--- PROJECT STUDY AREA (PSA)
--- P3 BROADBAND FIBER OPTIC

--- OPERATIONAL EXISTING RIGHT-OF-WAY
--- EXISTING EDGE OF ROADWAY SHOULDER
--- EXISTING CONTOUR

P3BFO

P3 BROADBAND FIBER OPTIC

0 100 200 FEET





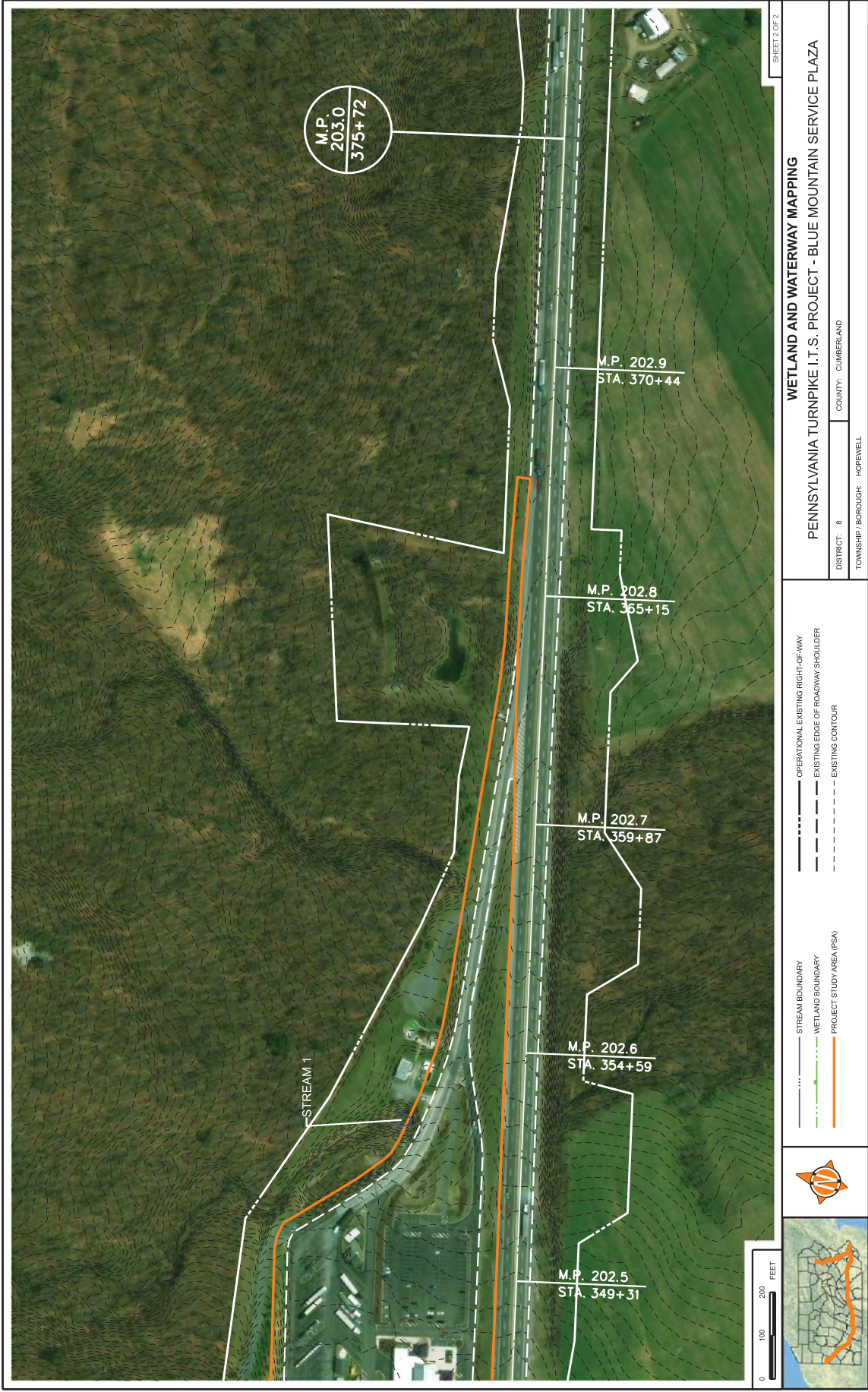
SHEET 1 OF 2

WETLAND AND WATERWAY MAPPING
PENNSYLVANIA TURNPIKE I.T.S. PROJECT - BLUE MOUNTAIN SERVICE PLAZA

DISTRICT: 8 COUNTY: CUMBERLAND
 TOWNSHIP / BOROUGH: HOPEWELL

--- STREAM BOUNDARY
--- WETLAND BOUNDARY
--- PROJECT STUDY AREA (PSA)

OPERATIONAL EXISTING RIGHT-OF-WAY
 EXISTING EDGE OF ROADWAY SHOULDER
 EXISTING CONTOUR



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SHEET 1 OF 2

PLAN VIEW

PENNSYLVANIA TURNPIKE I.T.S. PROJECT - CUMBERLAND VALLEY SERVICE CENTER

DISTRICT: 8	COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: WEST PENNSBORO	

— STREAM BOUNDARY

— WETLAND BOUNDARY

— PROJECT STUDY AREA (PSA)

— EXISTING EDGE OF ROADWAY SHOULDER

— EXISTING CONTOUR

— OPERATIONAL EXISTING RIGHT-OF-WAY

0 100 200 FEET



SHEET 2 OF 2

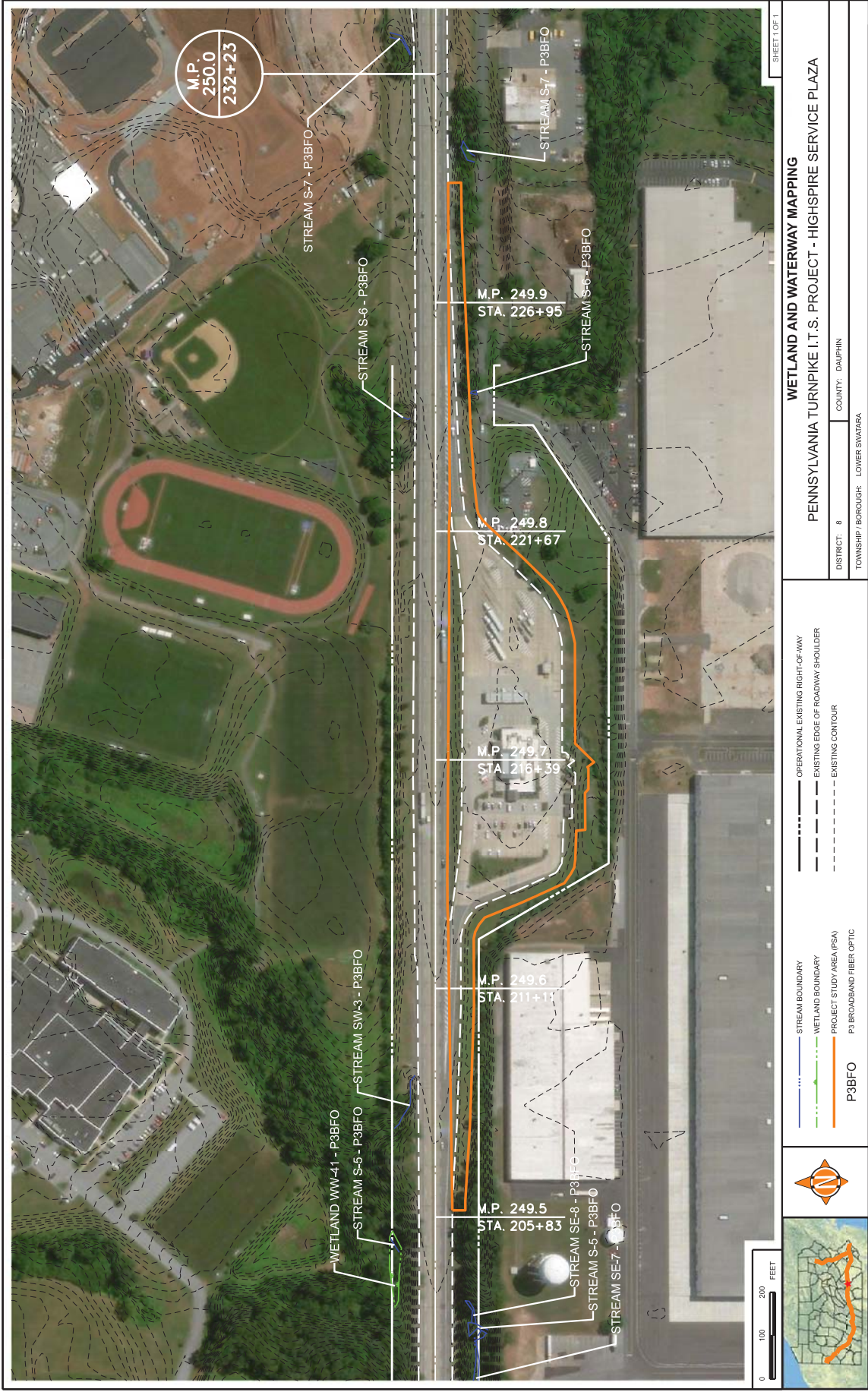
PLAN VIEW

PENNSYLVANIA TURNPIKE I.T.S. PROJECT - CUMBERLAND VALLEY SERVICE CENTER

DISTRICT: 8 COUNTY: CUMBERLAND

TOWNSHIP / BOROUGH: WEST PENNSBORO

PREPARED BY A.D. MARBLE, 5/13/2019



WETLAND AND WATERWAY MAPPING PENNSYLVANIA TURNPIKE I.T.S. PROJECT - HIGHSPIRE SERVICE PLAZA	
DISTRICT: 8 TOWNSHIP / BOROUGH: LOWER SWAYARA	COUNTY: DAUPHIN PREPARED BY: A.D. MARBLE 5/9/2019

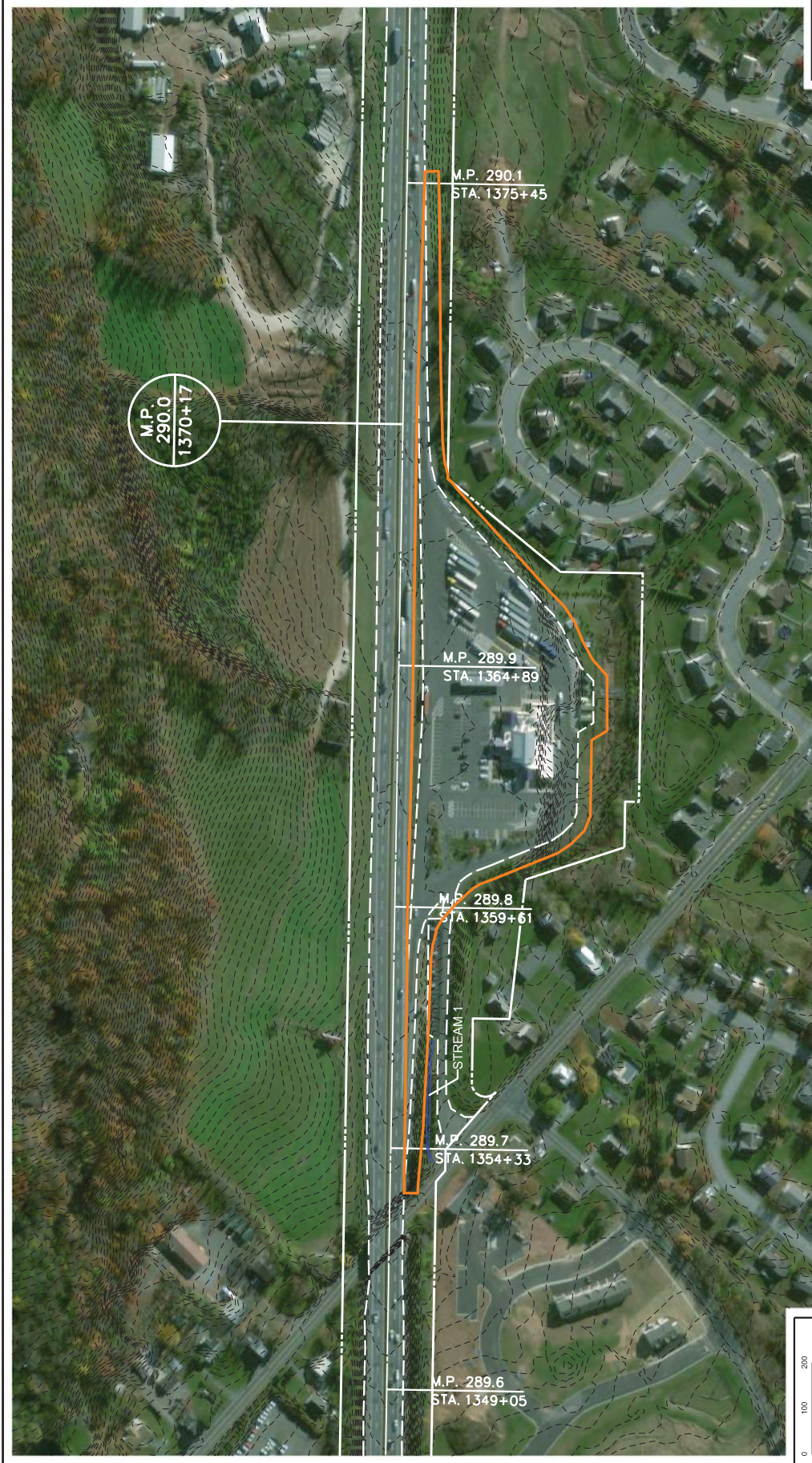
- OPERATIONAL EXISTING RIGHT-OF-WAY
- EXISTING EDGE OF ROADWAY SHOULDER
- EXISTING CONTOUR

- STREAM BOUNDARY
- WETLAND BOUNDARY
- PROJECT STUDY AREA (PSA)
- P3 BROADBAND FIBER OPTIC



0 100 200 FEET





SHEET 1 OF 1

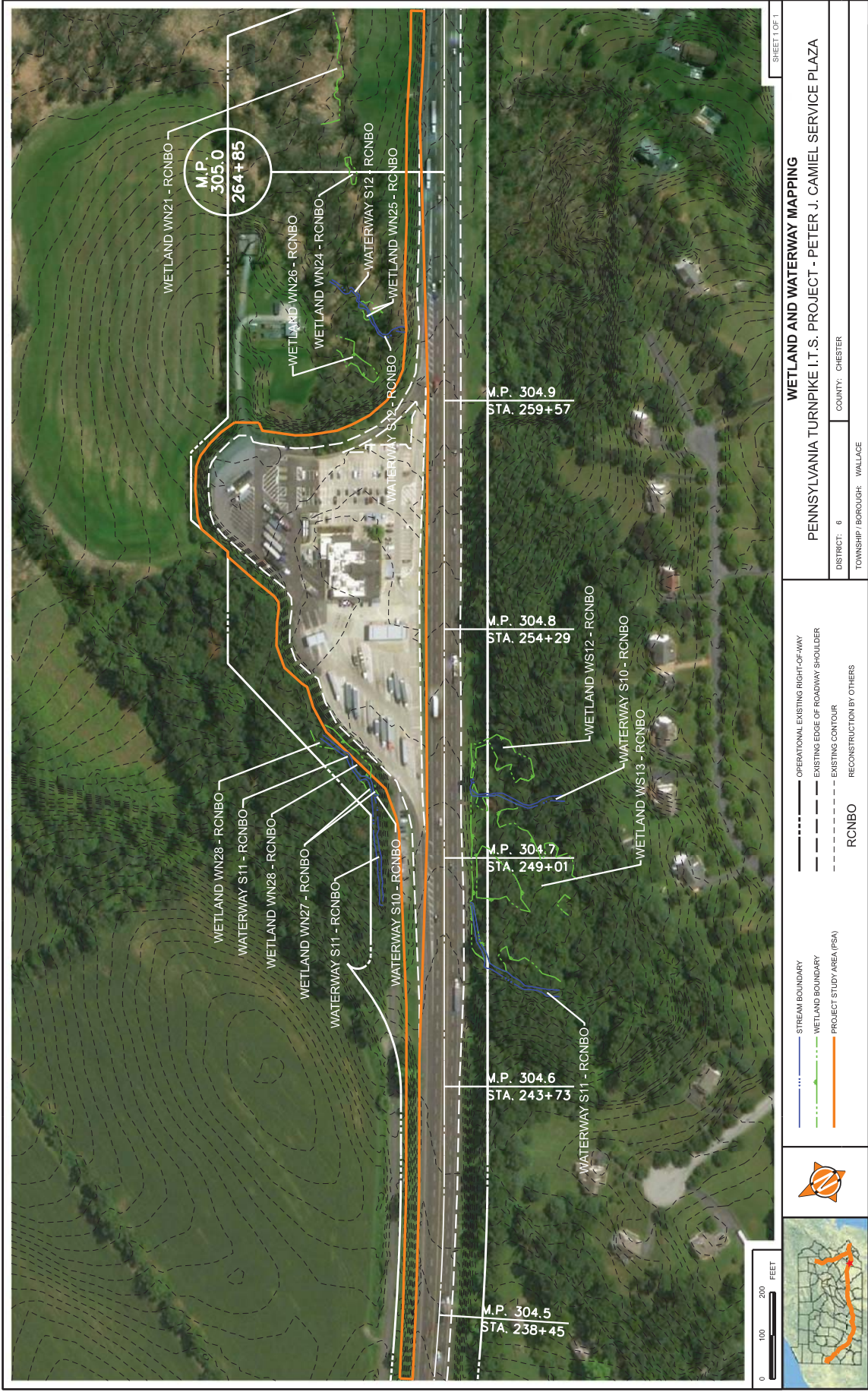
WETLAND AND WATERWAY MAPPING

PENNSYLVANIA TURNPIKE I.T.S. PROJECT - BOWMANVILLE SERVICE PLAZA

DISTRICT: 8	COUNTY: LANCASTER
TOWNSHIP / BOROUGH: BRECKNOCK	

<ul style="list-style-type: none"> STREAM BOUNDARY WETLAND BOUNDARY PROJECT STUDY AREA (PSA) 	<ul style="list-style-type: none"> OPERATIONAL EXISTING RIGHT-OF-WAY EXISTING EDGE OF ROADWAY SHOULDER EXISTING CONTOUR
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WETLAND AND WATERWAY MAPPING

PENNSYLVANIA TURNPIKE I.T.S. PROJECT - PETER J. CAMEL SERVICE PLAZA

DISTRICT: 6 COUNTY: CHESTER

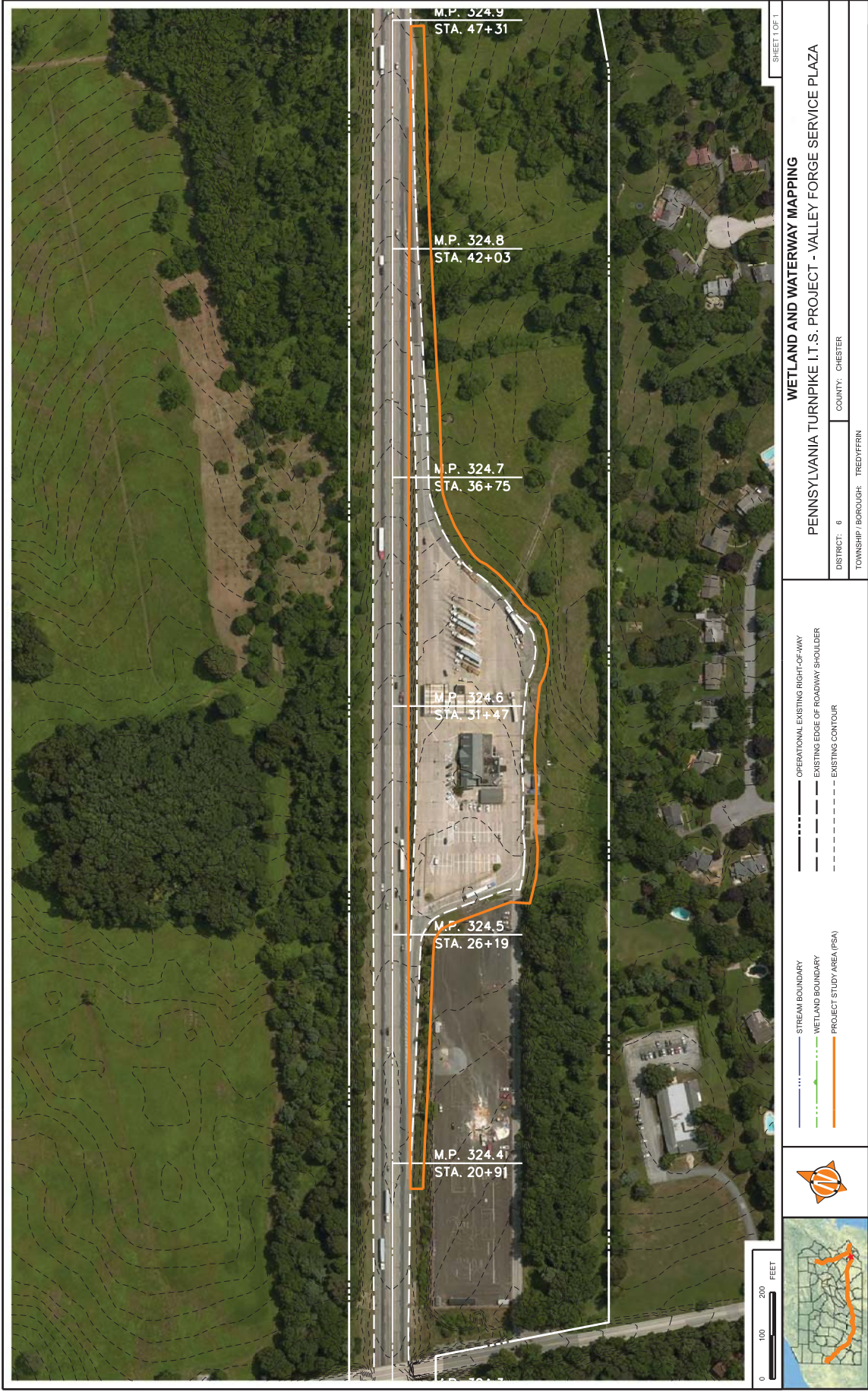
TOWNSHIP/BOROUGH: WALLACE

SHEET 1 OF 1

PREPARED BY: A.D. MARBLE: 5/9/2019

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SHEET 1 OF 1

WETLAND AND WATERWAY MAPPING
PENNSYLVANIA TURNPIKE I.T.S. PROJECT - VALLEY FORGE SERVICE PLAZA

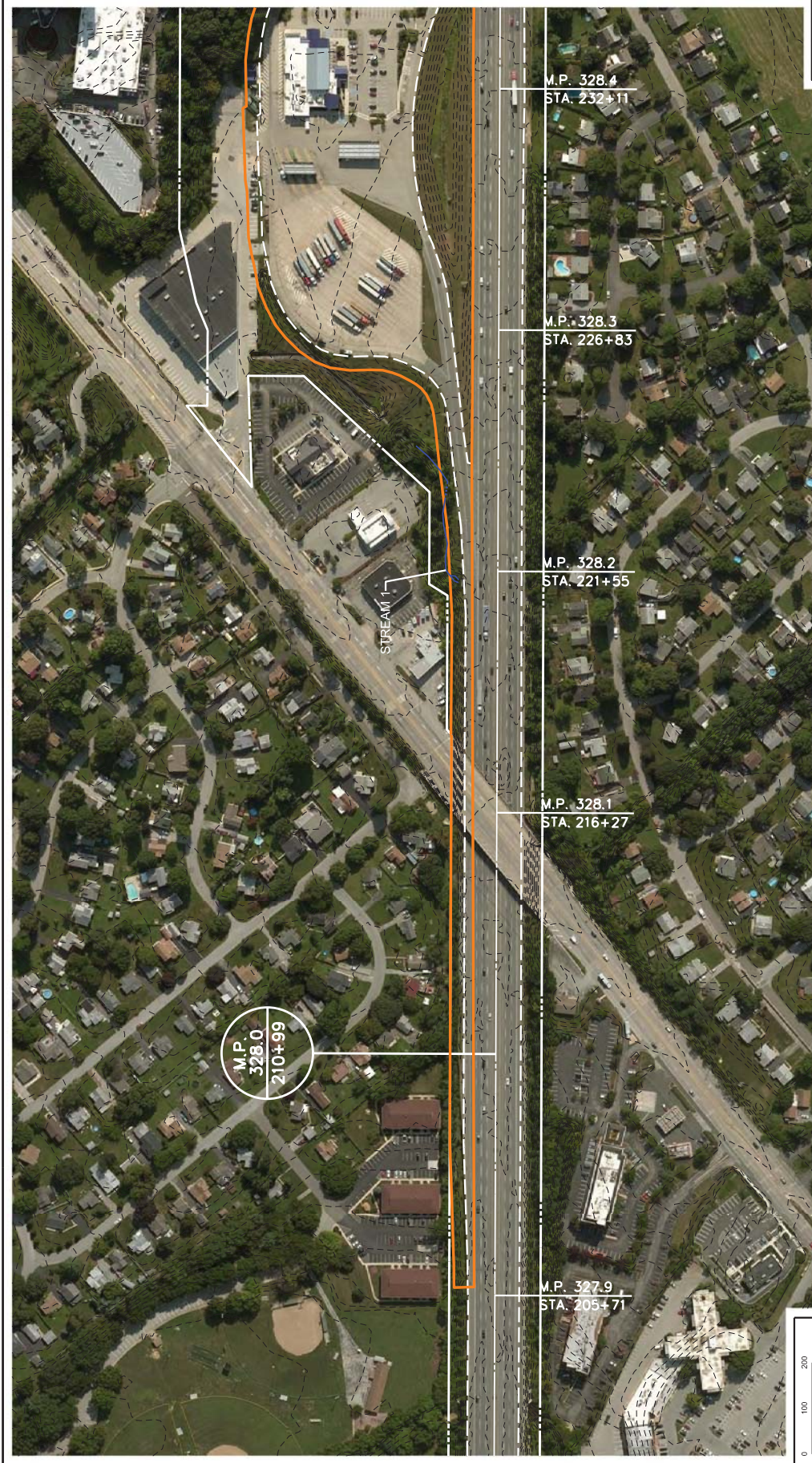
DISTRICT: 6 COUNTY: CHESTER
 TOWNSHIP / BOROUGH: TREDYFFRIN

— OPERATIONAL EXISTING RIGHT-OF-WAY
 - - - EXISTING EDGE OF ROADWAY SHOULDER
 - - - EXISTING CONTOUR

— STREAM BOUNDARY
 - - - WETLAND BOUNDARY
 - - - PROJECT STUDY AREA (PSA)



0 100 200 FEET



SHEET 1 OF 2

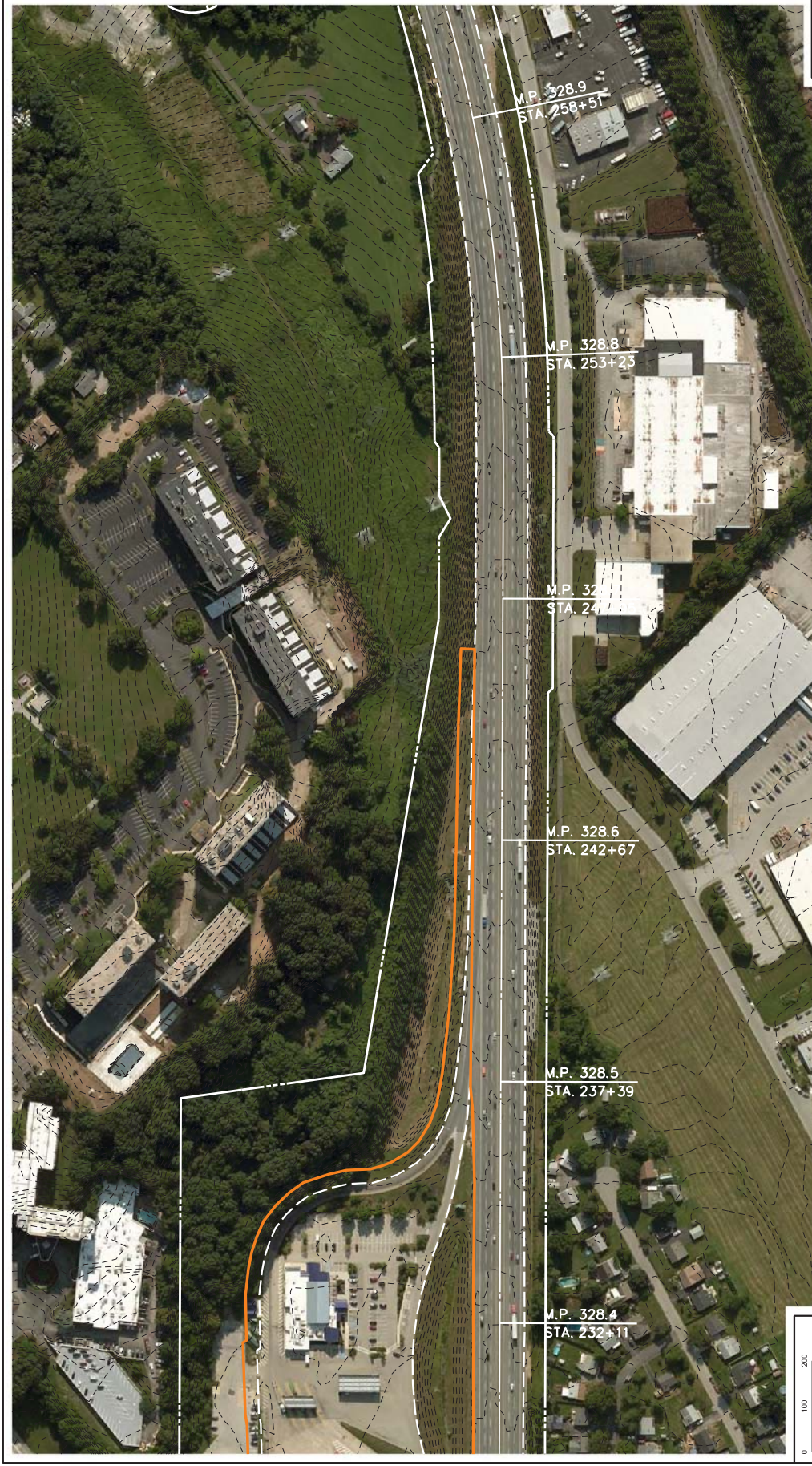
WETLAND AND WATERWAY MAPPING

PENNSYLVANIA TURNPIKE I.T.S. PROJECT - KING OF PRUSSIA SERVICE PLAZA

DISTRICT: 6	COUNTY: MONTGOMERY
TOWNSHIP / BOROUGH: UPPER MERION	

	STREAM BOUNDARY
	WETLAND BOUNDARY
	PROJECT STUDY AREA (PSA)
	OPERATIONAL EXISTING RIGHT-OF-WAY
	EXISTING EDGE OF ROADWAY SHOULDER
	EXISTING CONTOUR

0 100 200 FEET



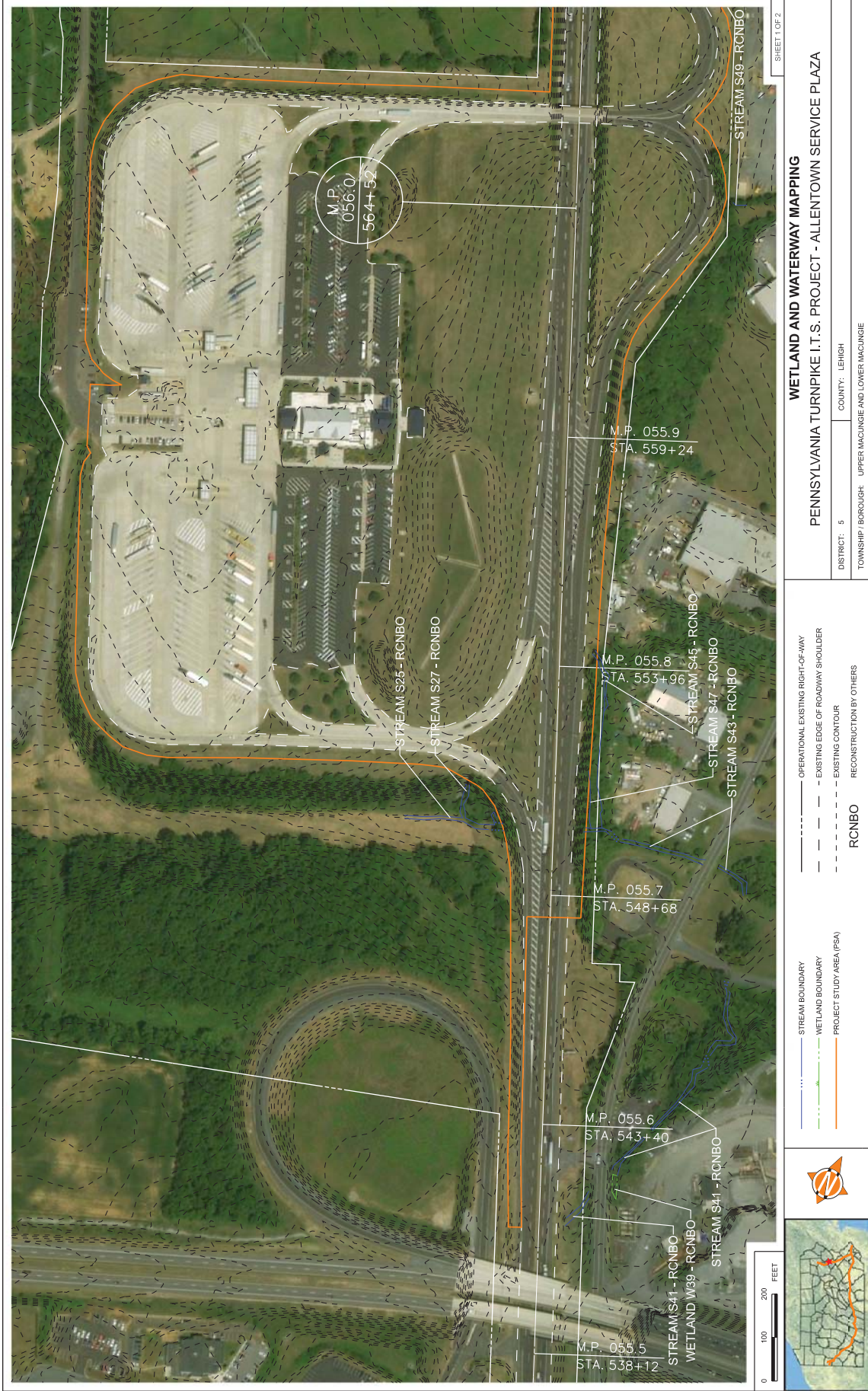
SHEET 2 OF 2

WETLAND AND WATERWAY MAPPING
PENNSYLVANIA TURNPIKE I.T.S. PROJECT - KING OF PRUSSIA SERVICE PLAZA

DISTRICT: 6 COUNTY: MONTGOMERY
 TOWNSHIP / BOROUGH: UPPER MERION

--- STREAM BOUNDARY
--- WETLAND BOUNDARY
--- PROJECT STUDY AREA (PSA)

OPERATIONAL EXISTING RIGHT-OF-WAY
 EXISTING EDGE OF ROADWAY SHOULDER
 EXISTING CONTOUR



WETLAND AND WATERWAY MAPPING	
PENNSYLVANIA TURNPIKE I.T.S. PROJECT - ALLENTOWN SERVICE PLAZA	
DISTRICT: 5	COUNTY: LEHIGH
TOWNSHIP / BOROUGH: UPPER MACUNGIE AND LOWER MACUNGIE	

<ul style="list-style-type: none"> — OPERATIONAL EXISTING RIGHT-OF-WAY - - - EXISTING EDGE OF ROADWAY SHOULDER - - - EXISTING CONTOUR - - - RECONSTRUCTION BY OTHERS 	RCNBO
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- STREAM BOUNDARY
- WETLAND BOUNDARY
- PROJECT STUDY AREA (PSA)





SHEET 1 OF 2

PREPARED BY: A.D. MARBLE, 5/13/2019

adam.marble@wsp.com | www.wsp.com





<p>PROJECT TITLE: PENNSYLVANIA TURNPIKE I.T.S. PROJECT - ALLENTOWN SERVICE PLAZA</p>	
<p>DISTRICT: 5</p>	<p>COUNTY: LEHIGH</p>
<p>TOWNSHIP / BOROUGH: UPPER MACUNGIE AND LOWER MACUNGIE</p>	

LEGEND

- OPERATIONAL EXISTING RIGHT-OF-WAY
- - - EXISTING EDGE OF ROADWAY SHOULDER
- - - EXISTING CONTOUR
- - - RECONSTRUCTION BY OTHERS

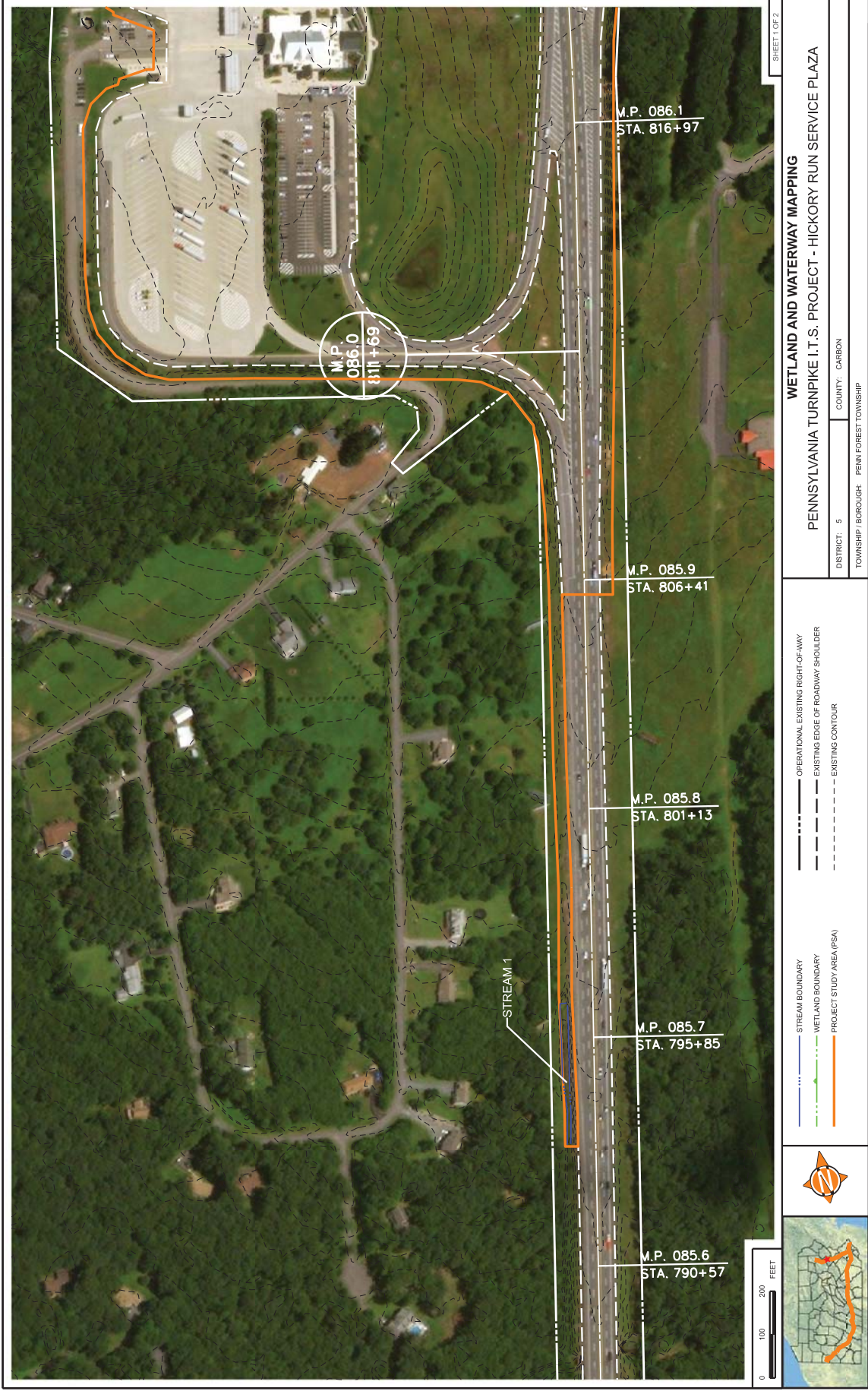
RCNBO

- STREAM BOUNDARY
- WETLAND BOUNDARY
- PROJECT STUDY AREA (PSA)

Scale: 0 100 200 FEET

Inset Map: [Map showing project location within a larger regional context]

North Arrow: [North arrow symbol]



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SHEET 2 OF 2

WETLAND AND WATERWAY MAPPING

PENNSYLVANIA TURNPIKE I.T.S. PROJECT - HICKORY RUN SERVICE PLAZA

DISTRICT: 5	COUNTY: CARBON
TOWNSHIP / BOROUGH: PENN FOREST TOWNSHIP	

<ul style="list-style-type: none"> STREAM BOUNDARY WETLAND BOUNDARY PROJECT STUDY AREA (PSA) 	<ul style="list-style-type: none"> OPERATIONAL EXISTING RIGHT-OF-WAY EXISTING EDGE OF ROADWAY SHOULDER EXISTING CONTOUR
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Appendix T - RFP# 19-10480-8386

Identified Waterways Table

Approximate MP	Stream Identification	Stream Name	Stream Type	Tributary To; Watershed	NWI	PADEP Chapter 93 Stream Classification	PFBC Approved Trout Water	Class A Wild Trout Stream	Pennsylvania Wild Trout Water (Natural Reproduction)	Navigable or Used for Recreation	PFBC Water Trail	Federal/State Wild and Scenic
MAINLINE												
Oakmont Service Plaza												
49.2 EB	O-51	UNT-1 to Plum Creek	Perennial	Plum Creek; Allegheny River	No	WWF	No	No	No	No	No	No
49.3 EB	O-52	UNT-2 to Plum Creek	Perennial	Plum Creek; Allegheny River	No	WWF	No	No	No	No	No	No
49.5 EB	O-53	UNT-3 to Plum Creek	Perennial	Plum Creek; Allegheny River	No	WWF	No	No	No	No	No	No
New Stanton Service Plaza												
77.9 WB	N-53	UNT-3 to Wilson Run	Perennial	Wilson Run; Youghlgheny River	R4SBC	WWF	No	No	No	No	No	No
78.0 WB	N-54	UNT-4 to Wilson Run	Intermittent	Wilson Run; Youghlgheny River	No	WWF	No	No	No	No	No	No
North Somerset Service Plaza												
112.7 WB	NS-51	UNT-1 to East Branch Coxes Creek	Perennial	East Branch Coxes Creek; Casselman River	No	TSF	No	No	No	No	No	No
112.6 WB	NS-52	UNT-2 to East Branch Coxes Creek	Perennial	East Branch Coxes Creek; Casselman River	No	TSF	No	No	No	No	No	No
112.55 WB	NS-53	UNT-3 to East Branch Coxes Creek	Perennial	East Branch Coxes Creek; Casselman River	No	TSF	No	No	No	No	No	No
112.5 WB	NS-54	UNT-4 to East Branch Coxes Creek	Perennial	East Branch Coxes Creek; Casselman River	No	TSF	No	No	No	No	No	No
112.2 WB	NS-55	UNT-5 to East Branch Coxes Creek	Ephemeral	East Branch Coxes Creek; Casselman River	No	TSF	No	No	No	No	No	No
South Somerset Service Plaza												
112.0 EB	SS-51	UNT-6 to East Branch Coxes Creek	Perennial	East Branch Coxes Creek	No	TSF	No	No	No	No	No	No
112.1 EB	SS-52	UNT-7 to East Branch Coxes Creek	Ephemeral	East Branch Coxes Creek	No	TSF	No	No	No	No	No	No
112.45 EB	SS-53	UNT-8 to East Branch Coxes Creek	Perennial	East Branch Coxes Creek	No	TSF	No	No	No	No	No	No
112.5 EB	SS-54	UNT-9 to East Branch Coxes Creek	Intermittent	East Branch Coxes Creek	PEM5AD	TSF	No	No	No	No	No	No
112.55 EB	SS-55	UNT-10 to East Branch Coxes Creek	Perennial	East Branch Coxes Creek	PEM5AD	TSF	No	No	No	No	No	No
112.55 EB	SS-56	UNT-11 to East Branch Coxes Creek	Perennial	East Branch Coxes Creek	PEM5AD	TSF	No	No	No	No	No	No

Appendix T - RFP# 19-10480-8386

Approximate MP	Stream Identification	Stream Name	Stream Type	Tributary To; Watershed	NWI	PADEP Chapter 93 Stream Classification	PFBC Approved Trout Water	Class A Wild Trout Stream	Pennsylvania Wild Trout Water (Natural Reproduction)	Navigable or Used for Recreation	PFBC Water Trail	Federal/State Wild and Scenic
North Midway Service Plaza												
147.3 WB	-	-	-	-	-	-	-	-	-	-	-	-
South Midway Service Plaza												
147.3 EB	-	-	-	-	-	-	-	-	-	-	-	-
Sideling Hill Service Plaza												
172.3 EB/WB	-	-	-	-	-	-	-	-	-	-	-	-
Blue Mountain Service Plaza												
202.5 WB	1	Newburg Run	Perennial	Conodoguinet Creek; Susquehanna River	R4SBC	WWF, MF	No	No	No	No	No	No
Cumberland Valley Service Plaza												
219.0 EB	UNT-1	UNT-1 to streamwater feature	Ephemeral	N/A - Isolated; outlets to SWM feature; Mount Rock Spring Creek and Conodoguinet Creek	No	WWF, MF	No	No	No	No	No	No
Highspire Service Plaza												
249.7 EB	56-P3BFO	UNT-13 to Susquehanna River	Perennial	Susquehanna River	No	WWF, MF	No	No	No	No	No	No
Lawn Service Plaza												
258.8 WB	1	UNT to Conewago Creek	Perennial	Conewago Creek; Susquehanna River	No	TSF, MF	No	No	No	No	No	No
Bowmansville Service Plaza												
289.9 EB	1	UNT to Muddy Creek	Intermittent	Muddy Creek; Conestoga River	No	TSF, MF	No	No	No	No	No	No
Peter J. Camiel Service Plaza												
304.7 WB	S11-RCNBO	UNT to Marsh Creek	Intermittent	Marsh Creek; East Branch Brandywine Creek	No	HQ-TSF, MF	No	No	No	No	No	No
304.9 WB	S12-RCNBO	UNT to Marsh Creek	Intermittent	Marsh Creek; East Branch Brandywine Creek	No	HQ-TSF, MF	No	No	No	No	No	No

Appendix T - RFP# 19-10480-8386

Approximate MP	Stream Identification	Stream Name	Stream Type	Tributary To; Watershed	NWI	PADEP Chapter 93 Stream Classification	PFBC Approved Trout Water	Class A Wild Trout Stream	Pennsylvania Wild Trout Water (Natural Reproduction)	Navigable or Used for Recreation	PFBC Water Trail	Federal/State Wild and Scenic
Valley Forge Service Plaza												
324.6 EB	-	-	-	-	-	-	-	-	-	-	-	-
King of Prussia Service Plaza												
328.2 WB	1	UNT to Crow Creek	Intermittent	Crow Creek; Schuylkill River	No	WWWF, MF	No	No	No	No	No	No
NORTHEAST EXTENSION												
Allentown Service Plaza												
A55.7 SB	525-RNBO	Cedar Creek	Intermittent	Little Lehigh Creek; Lehigh River	No	HQ-CWF, MF	No	Yes	Yes	No	No	No
A55.7 NB	527-RNBO	UNT to Cedar Creek	Ephemeral	Cedar Creek; Lehigh River	No	HQ-CWF, MF	No	Yes	Yes	No	No	No
A55.7 NB	543-RNBO	Cedar Creek	Intermittent	Little Lehigh Creek; Lehigh River	No	HQ-CWF, MF	No	Yes	Yes	No	No	No
A55.8 NB	545-RNBO	UNT Cedar Creek	Ephemeral	Cedar Creek; Lehigh River	No	HQ-CWF, MF	No	Yes	Yes	No	No	No
A55.7 NB	547-RNBO	UNT Cedar Creek	Ephemeral	Cedar Creek; Lehigh River	No	HQ-CWF, MF	No	Yes	Yes	No	No	No
Hickory Run Service Plaza												
85.7 SB	1	UNT Yellow Run	Intermittent	Yellow Run; Lehigh River	No	EV, MF	No	Yes	Yes	No	No	No
86.45 NB	2	UNT Stony Creek	Intermittent	Stony Creek; Lehigh River	No	EV, MF	No	Yes	Yes	No	No	No

Appendix T - RFP# 19-10480-8386

Identified Wetlands Table

Approximate MP	Wetland Identification	Cowardin Classification	Associated Waterway (If Applicable)	NWI	Exceptional Value	Wetland Continues Off-Site
MAINLINE						
Oakmont Service Plaza						
49.3 EB	-	-	-	-	-	-
New Stanton Service Plaza						
78.0 WB	N-W1	PEM	N-S1 and N-S2	No	No	Yes
78.0 WB	N-W2	PEM	N-S2	No	No	Yes
77.9 WB	N-W3	PEM	N/A	No	No	No
77.85 WB	N-W4	PEM	N-S3	No	No	Yes
77.8 WB	N-W5	PEM	N-S3	No	No	No
North Somerset Service Plaza						
112.6 WB	NS-W1	PEM	NS-S2	No	No	Yes
112.5 WB	NS-W2	PEM	N/A	No	No	No
112.4 WB	NS-W3	PEM	N/A	No	No	No
South Somerset Service Plaza						
112.3 EB	-	-	-	-	-	-
North Midway Service Plaza						
147.3 WB	-	-	-	-	-	-
South Midway Service Plaza						
147.3 EB	-	-	-	-	-	-
Sideling Hill Service Plaza						
172.3 EB/WB	-	-	-	-	-	-
Blue Mountain Service Plaza						
202.5 WB	-	-	-	-	-	-
Cumberland Valley Service Plaza						
219.1 EB	-	-	-	-	-	-
Highspire Service Plaza						
249.7 EB	-	-	-	-	-	-
Lawn Service Plaza						
258.8 WB	1	PEM	N/A	No	No	Yes
Bowmansville Service Plaza						
289.9 EB	-	-	-	-	-	-
Peter J. Camiel Service Plaza						
304.7 WB	WN28	PEM	S11 (outside PSA)	No	No	Yes

Appendix T - RFP# 19-10480-8386

Approximate MP	Wetland Identification	Cowardin Classification	Associated Waterway (If Applicable)	NWI	Exceptional Value	Wetland Continues Off-Site
Valley Forge Service Plaza						
324.6 EB	-	-	-	-	-	-
King of Prussia Service Plaza						
328.4 WB	-	-	-	-	-	-
NORTHEAST EXTENSION						
Allentown Service Plaza						
55.9 NB/SB	-	-	-	-	-	-
Hickory Run Service Plaza						
A86.3 NB	2	PEM/PFO	S2	No	Yes	Yes
A86.5 NB	1	PEM	S2	Yes	Yes	Yes

Appendix T - RFP# 19-10480-8386

Hazardous Waste Database Searches

Approximate MP	Facility	Potential Issue	Notes/Comments
MAINLINE			
Oakmont Service Plaza			
49.3 EB	Oakmont Service Plaza (facility identified as #599626; 7-11 #40288)	Existing USTs; environmental covenant for soil and groundwater contamination.	Sunoco Station has 4 gas pumps and 2 diesel pumps, as well as 4 associated tanks. Sunoco; Site ID 504449; Facility ID 02-80610. Oakmont Service Plaza Site ID 599626. An environmental covenant was placed on the property in 2017 to establish activity and use limitations related to potential soil and groundwater contamination in specified areas of the facility.
New Stanton Service Plaza			
77.6 WB	New Stanton Service Plaza (facility identified as #504461)	Existing USTs	Three registered USTs are located at the service plaza related to the Sunoco gas station. No covenants were identified for the facility.
North Somerset Service Plaza			
112.3 WB	North Somerset Service Plaza (facility identified as #504453; 7-11 #40273)	Existing USTs; environmental covenant for soil and groundwater contamination.	Listed under Environmental Cleanup & Brownsfields and Waste Management Program. Four registered USTs are located at the service plaza related to the Sunoco gas station. An environmental covenant was placed on the property in 2013 to establish activity and use limitations related to potential soil and groundwater contamination in specified areas of the facility.
South Somerset Service Plaza			
112.3 EB	South Somerset Service Plaza (facility identified as #504452)	Existing USTs; potential soil contamination.	Three registered USTs are located at the service plaza related to the Sunoco gas station. Listed under Waste Management program.
North Midway Service Plaza			
147.3 WB	North Midway Service Plaza (facility identified as #504444; 7-11 #40275)	Existing USTs; environmental covenant for soil and groundwater contamination.	Three registered USTs are located at the service plaza related to the Sunoco gas station. An environmental covenant was placed on the property in 2014 to establish activity and use limitations related to potential soil and groundwater contamination in specified areas of the facility.
South Midway Service Plaza			
147.3 EB	South Midway Service Plaza (facility identified as #504443; 7-11 #40274)	Existing USTs; potential soil contamination.	Four registered USTs are located at the service plaza related to the Sunoco gas station. Listed under Environmental Cleanup & Brownsfields and Waste Management Program.
Sideling Hill Service Plaza			
172.3 EB/WB	Sideling Hill Service Plaza (facility identified as 7-11 #40276)	Existing USTs; environmental covenant for potential soil contamination	Five registered USTs are located at the service plaza related to the gas station. An environmental covenant was placed on the property in 2012 to establish activity and use limitations related to potential soil contamination in specified areas of the facility.
Blue Mountain Service Plaza			
202.5 WB	Blue Mountain Service Plaza (facility identified as 7-11 #40277)	Existing USTs	Three registered USTs are located at the service plaza related to the gas station. All documented cleanups have been completed. No covenants were identified for the facility.
Cumberland Valley Service Plaza			
219.1 EB	Cumberland Valley Service Plaza	Existing USTs; potential residual soil & groundwater contamination	Multiple USTs are located at the service plaza related to the gas station. An incomplete storage tank cleanup was documented at the facility (UST#F-3, Attainment Monitoring in Progress as of 9/14/2016), impacting local soil and groundwater with gasoline and diesel constituents. Monitoring well location observed along grass shoulder between PTC mainline and service plaza building.

Appendix T - RFP# 19-10480-8386

Approximate MP	Facility	Potential Issue	Notes/Comments
Highspire Service Plaza			
249.7 EB	Highspire Service Plaza (facility identified as 7-11 #40283)	Existing USTs; environmental covenant for soil and groundwater contamination.	Three registered USTs are located at the service plaza related to the gas station. An environmental covenant was placed on the property in 2013 to establish activity and use limitations related to soil and groundwater contamination at specified areas of the facility.
Lawn Service Plaza			
258.8 WB	Lawn Service Plaza (facility identified as 7-11 #40280)	Existing USTs; environmental covenant for groundwater contamination.	Three registered USTs are located at the service plaza related to the gas station. An environmental covenant was placed on the property in 2016 to establish activity and use limitations related to groundwater contamination at specified areas of the facility.
Bowmansville Service Plaza			
289.9 EB	Bowmansville Service Plaza (facility identified as 7-11 #40285)	Existing USTs; potential residual soil and groundwater contamination.	Four registered USTs are located at the service plaza related to the gas station. Two on-going storage tank cleanups were documented at the facility (USTPT-2, Interim or Remedial Actions Initiated), which have impacted local soil and groundwater with gasoline and diesel constituents.
Peter J. Camiel Service Plaza			
304.8 WB	Peter J. Camiel Service Plaza (facility identified as 7-11 #40286)	Existing USTs; environmental covenant for soil and groundwater contamination.	Four registered USTs are located at the service plaza related to the gas station. An environmental covenant was placed on the property in 2014 to establish activity and use limitations related to soil and groundwater contamination at specified areas of the facility. An on-going storage tank cleanup was documented at the facility (USTPT-2, Interim or Remedial Actions Initiated), which has impacted local soil and groundwater with gasoline and diesel constituents.
Valley Forge Service Plaza			
324.6 EB	Valley Forge Service Plaza (facility identified as 7-11 #40287)	Existing USTs; potential residual soil and groundwater contamination.	Four registered USTs are located at the service plaza related to the gas station. An on-going storage tank cleanup was documented at the facility (USTPT-2, Interim or Remedial Actions Initiated), which has impacted local soil and groundwater with unleaded gasoline constituents.
King of Prussia Service Plaza			
328.4 WB	King of Prussia Service Plaza (facility identified as 7-11 #40279)	Existing USTs	Three registered USTs are located at the service plaza related to the gas station. All documented cleanups have been completed. No covenants were identified for the facility.
NORTHEAST EXTENSION			
Allentown Service Plaza			
55.9 NB/SB	Allentown Service Plaza (facility identified as 7-11 #40280)	Existing USTs; environmental covenant for potential soil and groundwater contamination.	Eight registered USTs are located at the service plaza related to the gas station. An environmental covenant was placed on the property in 2014 to establish activity and use limitations related to potential soil and groundwater contamination at specified areas of the facility.
Hickory Run Service Plaza			
86.1 NB/SB	Hickory Run Service Plaza (facility identified as 7-11 #40281)	Existing USTs; environmental covenant for groundwater contamination.	Eight registered USTs are located at the service plaza related to the gas station. An environmental covenant was placed on the property in 2016 to establish activity and use limitations related to groundwater contamination at specified areas of the facility.

Appendix T - RFP# 19-10480-8386

Pennsylvania Department of Conservation and Natural Resources

Project Search ID: PNDI-682260

PNDI Receipt: project_receipt_pa_turnpike_its_project_o_682260_FINAL_1.pdf

1. PROJECT INFORMATION

Project Name: **P.A. Turnpike I.T.S. Project - Oakmont Service Plaza**

Date of Review: **4/17/2019 12:17:22 PM**

Project Category: **Communication, Other**

Project Area: **7.29 acres**

County(s): **Allegheny**

Township/Municipality(s): **PLUM**

ZIP Code: **15147**

Quadrangle Name(s): **NEW KENSINGTON WEST**

Watersheds HUC 8: **Lower Allegheny**

Watersheds HUC 12: **Plum Creek**

Decimal Degrees: **40.521096, -79.813778**

Degrees Minutes Seconds: **40° 31' 15.9455" N, 79° 48' 49.6022" W**

2. SEARCH RESULTS

Agency	Results	Response
PA Game Commission	No Known Impact	No Further Review Required
PA Department of Conservation and Natural Resources	No Known Impact	No Further Review Required
PA Fish and Boat Commission	No Known Impact	No Further Review Required
U.S. Fish and Wildlife Service	No Known Impact	No Further Review Required

As summarized above, Pennsylvania Natural Diversity Inventory (PNDI) records indicate no known impacts to threatened and endangered species and/or special concern species and resources within the project area. Therefore, based on the information you provided, no further coordination is required with the jurisdictional agencies. This response does not reflect potential agency concerns regarding impacts to other ecological resources, such as wetlands.

Appendix T - RFP# 19-10480-8386

P.A. Turnpike I.T.S. Project - Oakmont Service Plaza



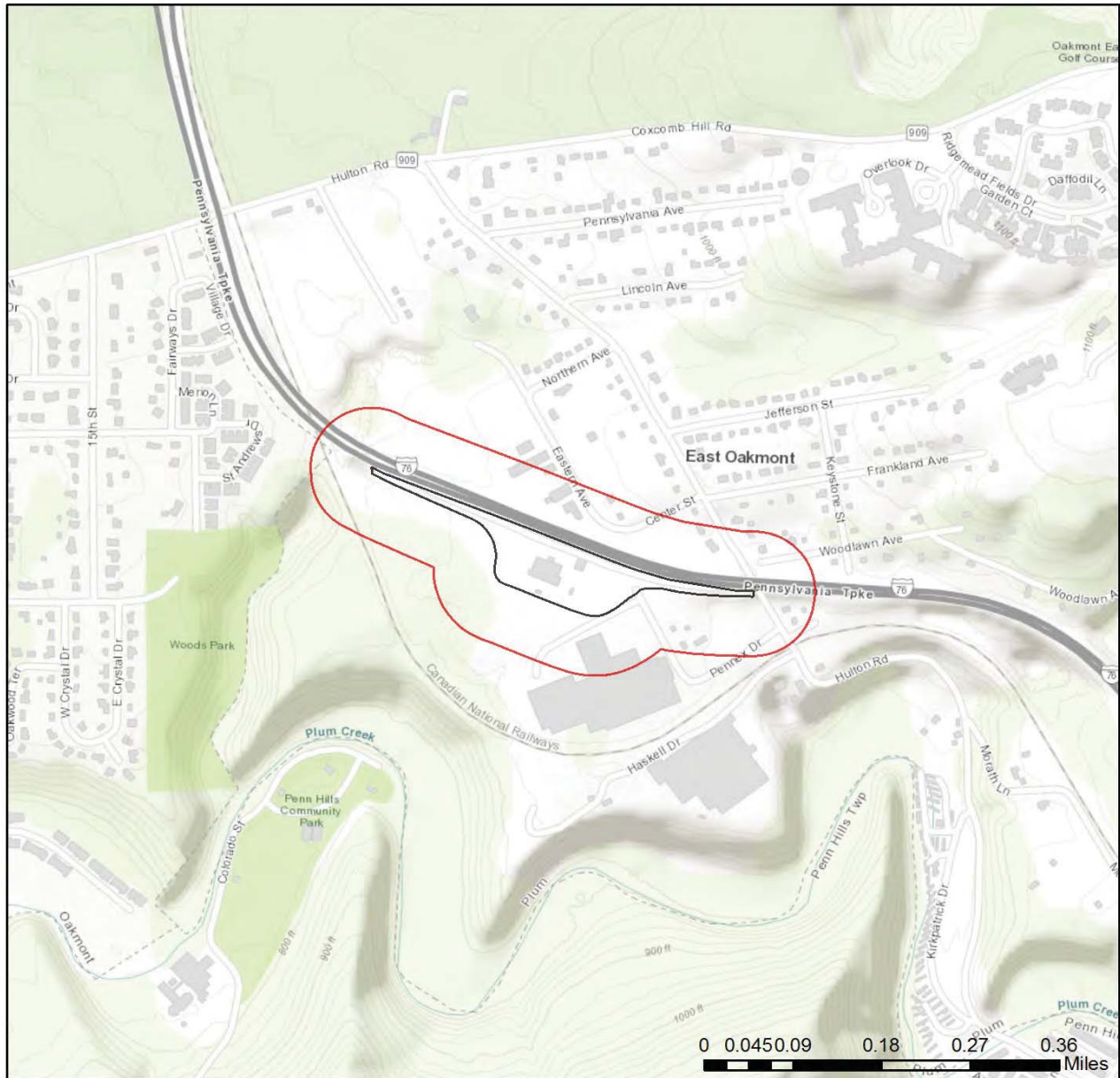
- Project Boundary
- Buffered Project Boundary

Service Layer Credits: Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community
 Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community



Appendix T - RFP# 19-10480-8386

P.A. Turnpike I.T.S. Project - Oakmont Service Plaza



- Project Boundary
- Buffered Project Boundary

Service Layer Credits: Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community
 Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS,



3. AGENCY COMMENTS

Regardless of whether a DEP permit is necessary for this proposed project, any potential impacts to threatened and endangered species and/or special concern species and resources must be resolved with the appropriate jurisdictional agency. In some cases, a permit or authorization from the jurisdictional agency may be needed if adverse impacts to these species and habitats cannot be avoided.

These agency determinations and responses are **valid for two years** (from the date of the review), and are based on the project information that was provided, including the exact project location; the project type, description, and features; and any responses to questions that were generated during this search. If any of the following change: 1) project location, 2) project size or configuration, 3) project type, or 4) responses to the questions that were asked during the online review, the results of this review are not valid, and the review must be searched again via the PNDI Environmental Review Tool and resubmitted to the jurisdictional agencies. The PNDI tool is a primary screening tool, and a desktop review may reveal more or fewer impacts than what is listed on this PNDI receipt. The jurisdictional agencies **strongly advise against** conducting surveys for the species listed on the receipt prior to consultation with the agencies.

PA Game Commission

RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Department of Conservation and Natural Resources

RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Fish and Boat Commission

RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

U.S. Fish and Wildlife Service

RESPONSE:

No impacts to **federally** listed or proposed species are anticipated. Therefore, no further consultation/coordination under the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq. is required. Because no take of federally listed species is anticipated, none is authorized. This response does not reflect potential Fish and Wildlife Service concerns under the Fish and Wildlife Coordination Act or other authorities.

4. DEP INFORMATION

The Pa Department of Environmental Protection (DEP) requires that a signed copy of this receipt, along with any required documentation from jurisdictional agencies concerning resolution of potential impacts, be submitted with applications for permits requiring PNDI review. Two review options are available to permit applicants for handling PNDI coordination in conjunction with DEP's permit review process involving either T&E Species or species of special concern. Under sequential review, the permit applicant performs a PNDI screening and completes all coordination with the appropriate jurisdictional agencies prior to submitting the permit application. The applicant will include with its application, both a PNDI receipt and/or a clearance letter from the jurisdictional agency if the PNDI Receipt shows a Potential Impact to a species or the applicant chooses to obtain letters directly from the jurisdictional agencies. Under concurrent review, DEP, where feasible, will allow technical review of the permit to occur concurrently with the T&E species consultation with the jurisdictional agency. The applicant must still supply a copy of the PNDI Receipt with its permit application. The PNDI Receipt should also be submitted to the appropriate agency according to directions on the PNDI Receipt. The applicant and the jurisdictional agency will work together to resolve the potential impact(s). See the DEP PNDI policy at <https://conservationexplorer.dcnr.pa.gov/content/resources>.

Appendix T - RFP# 19-10480-8386

Pennsylvania Department of Conservation and Natural Resources
PNDI Receipt: project_receipt_pa_turnpike_its_project_o_682260_FINAL_1.pdf

Project Search ID: PNDI-682260

5. ADDITIONAL INFORMATION

The PNDI environmental review website is a preliminary screening tool. There are often delays in updating species status classifications. Because the proposed status represents the best available information regarding the conservation status of the species, state jurisdictional agency staff give the proposed statuses at least the same consideration as the current legal status. If surveys or further information reveal that a threatened and endangered and/or special concern species and resources exist in your project area, contact the appropriate jurisdictional agency/agencies immediately to identify and resolve any impacts.

For a list of species known to occur in the county where your project is located, please see the species lists by county found on the PA Natural Heritage Program (PNHP) home page (www.naturalheritage.state.pa.us). Also note that the PNDI Environmental Review Tool only contains information about species occurrences that have actually been reported to the PNHP.

6. AGENCY CONTACT INFORMATION

PA Department of Conservation and Natural Resources

Bureau of Forestry, Ecological Services Section
400 Market Street, PO Box 8552
Harrisburg, PA 17105-8552
Email: RA-HeritageReview@pa.gov

U.S. Fish and Wildlife Service

Pennsylvania Field Office
Endangered Species Section
110 Radnor Rd; Suite 101
State College, PA 16801
NO Faxes Please

PA Fish and Boat Commission

Division of Environmental Services
595 E. Rolling Ridge Dr., Bellefonte, PA 16823
Email: RA-FBPACENOTIFY@pa.gov

PA Game Commission


Bureau of Wildlife Habitat Management
Division of Environmental Planning and Habitat Protection
2001 Elmerton Avenue, Harrisburg, PA 17110-9797
Email: RA-PGC_PNDI@pa.gov
NO Faxes Please

7. PROJECT CONTACT INFORMATION

Name: Renee Krynock
Company/Business Name: A.D. Marble
Address: 1000 Gamma Drive, Suite 203
City, State, Zip: Pittsburgh, PA 15238
Phone: (412) 968-5978 Fax: (412) 968-5978
Email: _____

8. CERTIFICATION

I certify that ALL of the project information contained in this receipt (including project location, project size/configuration, project type, answers to questions) is true, accurate and complete. In addition, if the project type, location, size or configuration changes, or if the answers to any questions that were asked during this online review change, I agree to re-do the online environmental review.


applicant/project proponent signature

4/17/19
date

Appendix T - RFP# 19-10480-8386

Pennsylvania Department of Conservation and Natural Resources

Project Search ID: PNDI-682259

PNDI Receipt: project_receipt_pa_turnpike_its_project_n_682259_FINAL_1.pdf

1. PROJECT INFORMATION

Project Name: **P.A. Turnpike I.T.S. Project - New Stanton Service Plaza**

Date of Review: **4/17/2019 12:12:25 PM**

Project Category: **Communication, Other**

Project Area: **18.58 acres**

County(s): **Westmoreland**

Township/Municipality(s): **HEMPFIELD**

ZIP Code: **15639**

Quadrangle Name(s): **MOUNT PLEASANT**

Watersheds HUC 8: **Youghiogheny**

Watersheds HUC 12: **Lower Sewickley Creek**

Decimal Degrees: **40.205844, -79.565600**

Degrees Minutes Seconds: **40° 12' 21.375" N, 79° 33' 56.1589" W**

2. SEARCH RESULTS

Agency	Results	Response
PA Game Commission	No Known Impact	No Further Review Required
PA Department of Conservation and Natural Resources	No Known Impact	No Further Review Required
PA Fish and Boat Commission	No Known Impact	No Further Review Required
U.S. Fish and Wildlife Service	No Known Impact	No Further Review Required

As summarized above, Pennsylvania Natural Diversity Inventory (PNDI) records indicate no known impacts to threatened and endangered species and/or special concern species and resources within the project area. Therefore, based on the information you provided, no further coordination is required with the jurisdictional agencies. This response does not reflect potential agency concerns regarding impacts to other ecological resources, such as wetlands.

P.A. Turnpike I.T.S. Project - New Stanton Service Plaza



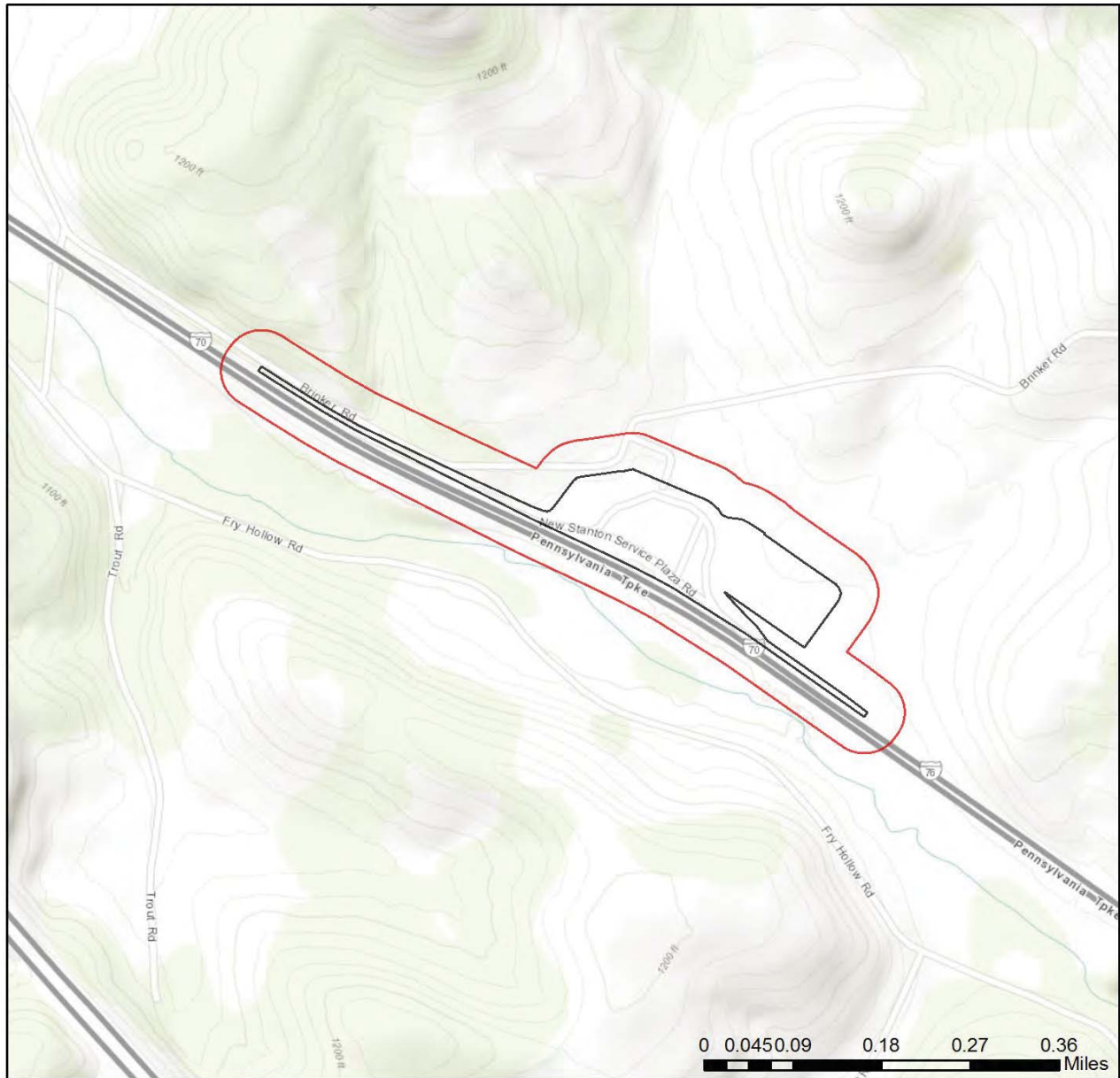
- Project Boundary
- Buffered Project Boundary

Service Layer Credits: Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community
 Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community



Appendix T - RFP# 19-10480-8386

P.A. Turnpike I.T.S. Project - New Stanton Service Plaza



- Project Boundary
- Buffered Project Boundary

Service Layer Credits: Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community
Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS,



3. AGENCY COMMENTS

Regardless of whether a DEP permit is necessary for this proposed project, any potential impacts to threatened and endangered species and/or special concern species and resources must be resolved with the appropriate jurisdictional agency. In some cases, a permit or authorization from the jurisdictional agency may be needed if adverse impacts to these species and habitats cannot be avoided.

These agency determinations and responses are **valid for two years** (from the date of the review), and are based on the project information that was provided, including the exact project location; the project type, description, and features; and any responses to questions that were generated during this search. If any of the following change: 1) project location, 2) project size or configuration, 3) project type, or 4) responses to the questions that were asked during the online review, the results of this review are not valid, and the review must be searched again via the PNDI Environmental Review Tool and resubmitted to the jurisdictional agencies. The PNDI tool is a primary screening tool, and a desktop review may reveal more or fewer impacts than what is listed on this PNDI receipt. The jurisdictional agencies **strongly advise against** conducting surveys for the species listed on the receipt prior to consultation with the agencies.

PA Game Commission

RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Department of Conservation and Natural Resources

RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Fish and Boat Commission

RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

U.S. Fish and Wildlife Service

RESPONSE:

No impacts to **federally** listed or proposed species are anticipated. Therefore, no further consultation/coordination under the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq. is required. Because no take of federally listed species is anticipated, none is authorized. This response does not reflect potential Fish and Wildlife Service concerns under the Fish and Wildlife Coordination Act or other authorities.

4. DEP INFORMATION

The Pa Department of Environmental Protection (DEP) requires that a signed copy of this receipt, along with any required documentation from jurisdictional agencies concerning resolution of potential impacts, be submitted with applications for permits requiring PNDI review. Two review options are available to permit applicants for handling PNDI coordination in conjunction with DEP's permit review process involving either T&E Species or species of special concern. Under sequential review, the permit applicant performs a PNDI screening and completes all coordination with the appropriate jurisdictional agencies prior to submitting the permit application. The applicant will include with its application, both a PNDI receipt and/or a clearance letter from the jurisdictional agency if the PNDI Receipt shows a Potential Impact to a species or the applicant chooses to obtain letters directly from the jurisdictional agencies. Under concurrent review, DEP, where feasible, will allow technical review of the permit to occur concurrently with the T&E species consultation with the jurisdictional agency. The applicant must still supply a copy of the PNDI Receipt with its permit application. The PNDI Receipt should also be submitted to the appropriate agency according to directions on the PNDI Receipt. The applicant and the jurisdictional agency will work together to resolve the potential impact(s). See the DEP PNDI policy at <https://conservationexplorer.dcnr.pa.gov/content/resources>.

Appendix T - RFP# 19-10480-8386

Pennsylvania Department of Conservation and Natural Resources
PNDI Receipt: [project_receipt_pa_turnpike_its_project_n_682259_FINAL_1.pdf](#)

Project Search ID: PNDI-682259

5. ADDITIONAL INFORMATION

The PNDI environmental review website is a preliminary screening tool. There are often delays in updating species status classifications. Because the proposed status represents the best available information regarding the conservation status of the species, state jurisdictional agency staff give the proposed statuses at least the same consideration as the current legal status. If surveys or further information reveal that a threatened and endangered and/or special concern species and resources exist in your project area, contact the appropriate jurisdictional agency/agencies immediately to identify and resolve any impacts.

For a list of species known to occur in the county where your project is located, please see the species lists by county found on the PA Natural Heritage Program (PNHP) home page (www.naturalheritage.state.pa.us). Also note that the PNDI Environmental Review Tool only contains information about species occurrences that have actually been reported to the PNHP.

6. AGENCY CONTACT INFORMATION

PA Department of Conservation and Natural Resources

Bureau of Forestry, Ecological Services Section
400 Market Street, PO Box 8552
Harrisburg, PA 17105-8552
Email: RA-HeritageReview@pa.gov

U.S. Fish and Wildlife Service

Pennsylvania Field Office
Endangered Species Section
110 Radnor Rd; Suite 101
State College, PA 16801
NO Faxes Please

PA Fish and Boat Commission

Division of Environmental Services
595 E. Rolling Ridge Dr., Bellefonte, PA 16823
Email: RA-FBPACENOTIFY@pa.gov

PA Game Commission

Bureau of Wildlife Habitat Management
Division of Environmental Planning and Habitat Protection
2001 Elmerton Avenue, Harrisburg, PA 17110-9797
Email: RA-PGC_PNDI@pa.gov
NO Faxes Please

7. PROJECT CONTACT INFORMATION

Name: Renee Krynock
Company/Business Name: A.D. Marble
Address: 1000 Gamma Drive, Suite 203
City, State, Zip: Pittsburgh, PA 15238
Phone: (412) 968-5977 Fax: (412) 968-5978
Email: rkrynock@admarble.com

8. CERTIFICATION

I certify that ALL of the project information contained in this receipt (including project location, project size/configuration, project type, answers to questions) is true, accurate and complete. In addition, if the project type, location, size or configuration changes, or if the answers to any questions that were asked during this online review change, I agree to re-do the online environmental review.

Renee Krynock
applicant/project proponent signature

4/17/19
date

Appendix T - RFP# 19-10480-8386

Pennsylvania Department of Conservation and Natural Resources

Project Search ID: PNDI-682258

PNDI Receipt: project_receipt_pa_turnpike_its_project_s_682258_FINAL_1.pdf

1. PROJECT INFORMATION

Project Name: **P.A. Turnpike I.T.S. Project - Somerset Service Plaza**

Date of Review: **5/16/2019 03:20:39 PM**

Project Category: **Communication, Other**

Project Area: **34.89 acres**

County(s): **Somerset**

Township/Municipality(s): **SOMERSET**

ZIP Code: **15501**

Quadrangle Name(s): **MURDOCK; SOMERSET**

Watersheds HUC 8: **Youghiogheny**

Watersheds HUC 12: **Lake Somerset-East Branch Coxes Creek**

Decimal Degrees: **39.999295, -79.046100**

Degrees Minutes Seconds: **39° 59' 57.4633" N, 79° 2' 45.9599" W**

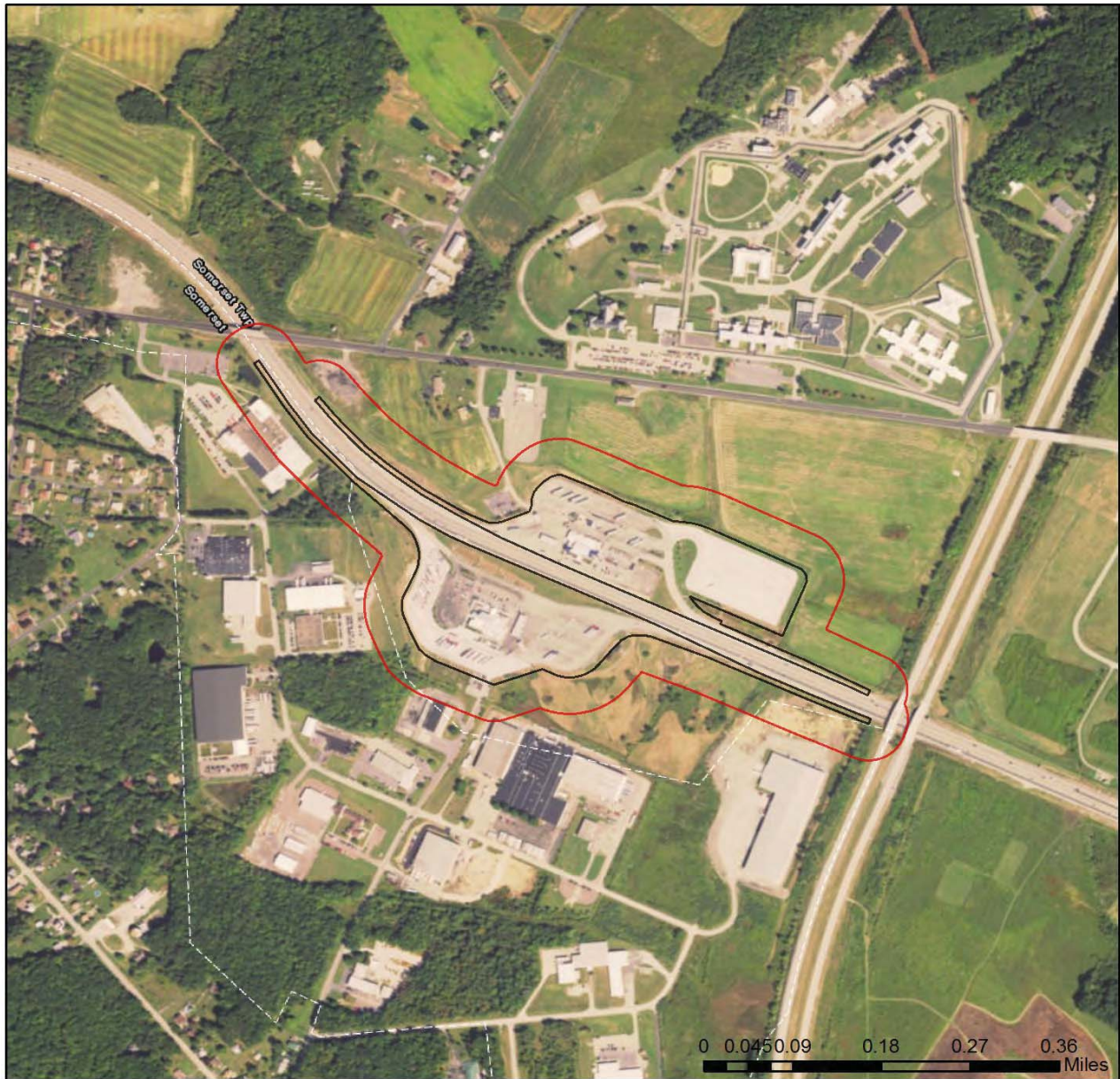
2. SEARCH RESULTS

Agency	Results	Response
PA Game Commission	Potential Impact	FURTHER REVIEW IS REQUIRED, See Agency Response
PA Department of Conservation and Natural Resources	No Known Impact	No Further Review Required
PA Fish and Boat Commission	No Known Impact	No Further Review Required
U.S. Fish and Wildlife Service	No Known Impact	No Further Review Required

As summarized above, Pennsylvania Natural Diversity Inventory (PNDI) records indicate there may be potential impacts to threatened and endangered and/or special concern species and resources within the project area. If the response above indicates "No Further Review Required" no additional communication with the respective agency is required. If the response is "Further Review Required" or "See Agency Response," refer to the appropriate agency comments below. Please see the DEP Information Section of this receipt if a PA Department of Environmental Protection Permit is required.

Appendix T - RFP# 19-10480-8386

P.A. Turnpike I.T.S. Project - Somerset Service Plaza



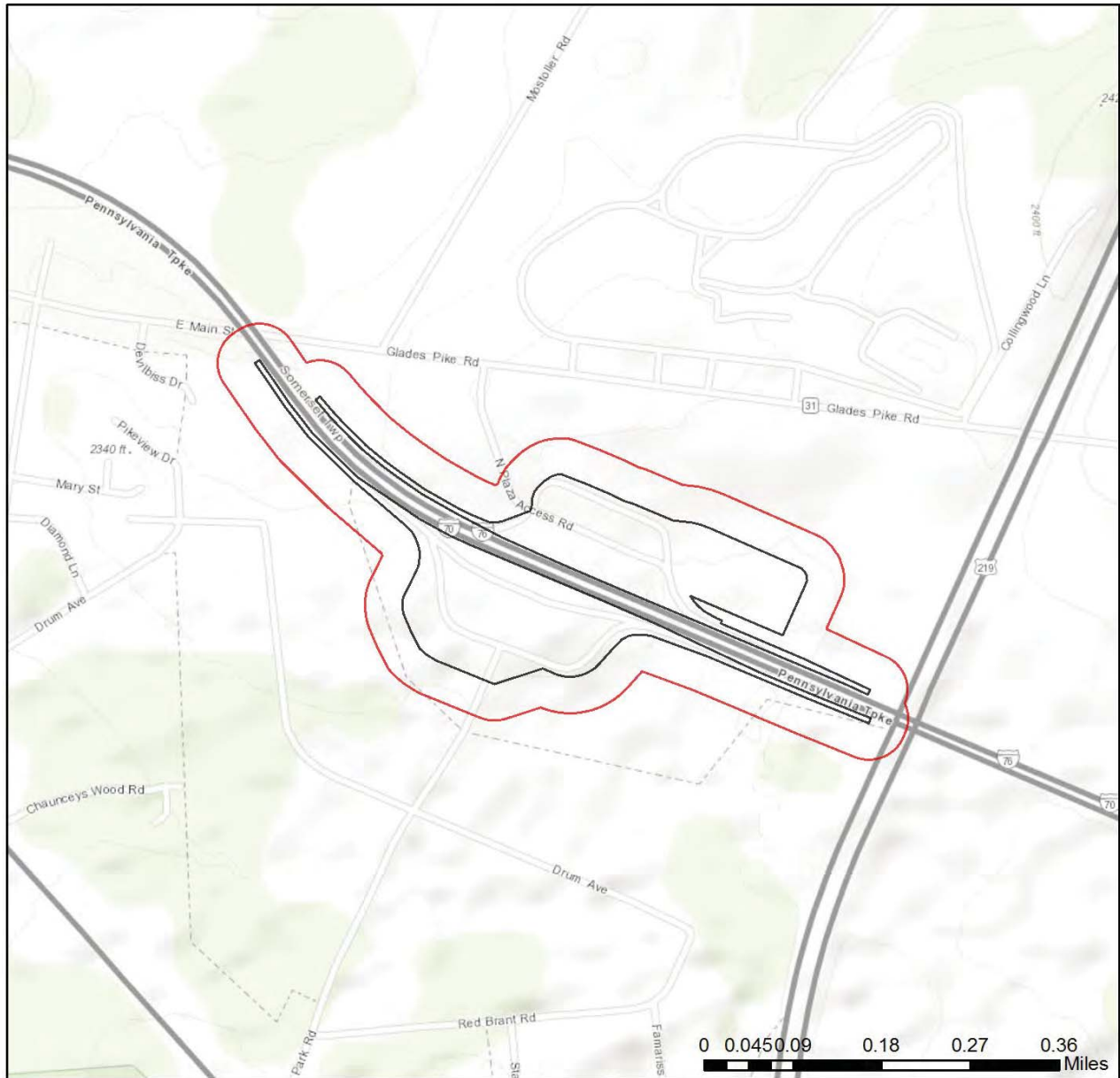
- Project Boundary
- Buffered Project Boundary

Service Layer Credits: Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community
Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community



Appendix T - RFP# 19-10480-8386

P.A. Turnpike I.T.S. Project - Somerset Service Plaza



- Project Boundary
- Buffered Project Boundary

Service Layer Credits: Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community
 Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS,



RESPONSE TO QUESTION(S) ASKED

Q1: Is tree removal, tree cutting or forest clearing necessary to implement all aspects of this project?

Your answer is: No

Q2: How many acres of woodland, forest, forested fencerows and trees will be cut, cleared, removed, disturbed or flooded (inundated) as a result of carrying out all aspects or phases of this project? [Round acreages UP to the nearest acre (e.g., 0.2 acres = 1 acre).]

Your answer is: zero acres

3. AGENCY COMMENTS

Regardless of whether a DEP permit is necessary for this proposed project, any potential impacts to threatened and endangered species and/or special concern species and resources must be resolved with the appropriate jurisdictional agency. In some cases, a permit or authorization from the jurisdictional agency may be needed if adverse impacts to these species and habitats cannot be avoided.

These agency determinations and responses are **valid for two years** (from the date of the review), and are based on the project information that was provided, including the exact project location; the project type, description, and features; and any responses to questions that were generated during this search. If any of the following change: 1) project location, 2) project size or configuration, 3) project type, or 4) responses to the questions that were asked during the online review, the results of this review are not valid, and the review must be searched again via the PNDI Environmental Review Tool and resubmitted to the jurisdictional agencies. The PNDI tool is a primary screening tool, and a desktop review may reveal more or fewer impacts than what is listed on this PNDI receipt. The jurisdictional agencies **strongly advise against** conducting surveys for the species listed on the receipt prior to consultation with the agencies.

PA Game Commission

RESPONSE:

Further review of this project is necessary to resolve the potential impact(s). Please send project information to this agency for review (see WHAT TO SEND).

PGC Species: (Note: The Pennsylvania Conservation Explorer tool is a primary screening tool, and a desktop review may reveal more or fewer species than what is listed below.)

Scientific Name	Common Name	Current Status
Circus cyaneus	Northern Harrier	Threatened

PA Department of Conservation and Natural Resources

RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Fish and Boat Commission

RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

U.S. Fish and Wildlife Service

RESPONSE:

No impacts to **federally** listed or proposed species are anticipated. Therefore, no further consultation/coordination under the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq. is required. Because no take of federally listed species is anticipated, none is authorized. This response does not reflect potential Fish and Wildlife Service concerns under the Fish and Wildlife Coordination Act or other authorities.

* Special Concern Species or Resource - Plant or animal species classified as rare, tentatively undetermined or candidate as well as other taxa of conservation concern, significant natural communities, special concern populations (plants or animals) and unique geologic features.

** Sensitive Species - Species identified by the jurisdictional agency as collectible, having economic value, or being susceptible to decline as a result of visitation.

WHAT TO SEND TO JURISDICTIONAL AGENCIES

If project information was requested by one or more of the agencies above, upload* or email* the following information to the agency(s). Instructions for uploading project materials can be found [here](#). This option provides the applicant with the convenience of sending project materials to a single location accessible to all three state agencies. Alternatively, applicants may email or mail their project materials (see AGENCY CONTACT INFORMATION).

***Note:** U.S.Fish and Wildlife Service requires applicants to mail project materials to the USFWS PA field office (see AGENCY CONTACT INFORMATION). USFWS will not accept project materials submitted electronically (by upload or email).

Check-list of Minimum Materials to be submitted:

____Project narrative with a description of the overall project, the work to be performed, current physical characteristics of the site and acreage to be impacted.

____A map with the project boundary and/or a basic site plan(particularly showing the relationship of the project to the physical features such as wetlands, streams, ponds, rock outcrops, etc.)

In addition to the materials listed above, USFWS REQUIRES the following

____ **SIGNED** copy of a Final Project Environmental Review Receipt

The inclusion of the following information may expedite the review process.

____Color photos keyed to the basic site plan (i.e. showing on the site plan where and in what direction each photo was taken and the date of the photos)

____Information about the presence and location of wetlands in the project area, and how this was determined (e.g., by a qualified wetlands biologist), if wetlands are present in the project area, provide project plans showing the location of all project features, as well as wetlands and streams.

4. DEP INFORMATION

The Pa Department of Environmental Protection (DEP) requires that a signed copy of this receipt, along with any required documentation from jurisdictional agencies concerning resolution of potential impacts, be submitted with applications for permits requiring PNDI review. Two review options are available to permit applicants for handling PNDI coordination in conjunction with DEP's permit review process involving either T&E Species or species of special concern. Under sequential review, the permit applicant performs a PNDI screening and completes all coordination with the appropriate jurisdictional agencies prior to submitting the permit application. The applicant will include with its application, both a PNDI receipt and/or a clearance letter from the jurisdictional agency if the PNDI Receipt shows a Potential Impact to a species or the applicant chooses to obtain letters directly from the jurisdictional agencies. Under concurrent review, DEP, where feasible, will allow technical review of the permit to occur concurrently with the T&E species consultation with the jurisdictional agency. The applicant must still supply a copy of the PNDI Receipt with its permit application. The PNDI Receipt should also be submitted to the appropriate agency according to directions on the PNDI Receipt. The applicant and the jurisdictional agency will work together to resolve the potential impact(s). See the DEP PNDI policy at <https://conservationexplorer.dcnr.pa.gov/content/resources>.

5. ADDITIONAL INFORMATION

The PNDI environmental review website is a preliminary screening tool. There are often delays in updating species status classifications. Because the proposed status represents the best available information regarding the conservation status of the species, state jurisdictional agency staff give the proposed statuses at least the same consideration as the current legal status. If surveys or further information reveal that a threatened and endangered and/or special concern species and resources exist in your project area, contact the appropriate jurisdictional agency/agencies immediately to identify and resolve any impacts.

For a list of species known to occur in the county where your project is located, please see the species lists by county found on the PA Natural Heritage Program (PNHP) home page (www.naturalheritage.state.pa.us). Also note that the PNDI Environmental Review Tool only contains information about species occurrences that have actually been reported to the PNHP.

6. AGENCY CONTACT INFORMATION

PA Department of Conservation and Natural Resources

Bureau of Forestry, Ecological Services Section
 400 Market Street, PO Box 8552
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 Email: RA-HeritageReview@pa.gov

U.S. Fish and Wildlife Service

Pennsylvania Field Office
 Endangered Species Section
 110 Radnor Rd; Suite 101
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PA Fish and Boat Commission

Division of Environmental Services
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 Email: RA-FBPACENOTIFY@pa.gov

PA Game Commission

Bureau of Wildlife Habitat Management
 Division of Environmental Planning and Habitat Protection
 2001 Elmerton Avenue, Harrisburg, PA 17110-9797
 Email: RA-PGC_PNDI@pa.gov
 NO Faxes Please

7. PROJECT CONTACT INFORMATION

Name: Renee Krynock
 Company/Business Name: A.D. Marble
 Address: 1000 Gamma Drive, Suite 203
 City, State, Zip: Pittsburgh, PA 15238
 Phone: (412) 968-5978 Fax: (412) 968-5978
 Email: rkrynock@admarble.com

8. CERTIFICATION

I certify that ALL of the project information contained in this receipt (including project location, project size/configuration, project type, answers to questions) is true, accurate and complete. In addition, if the project type, location, size or configuration changes, or if the answers to any questions that were asked during this online review change, I agree to re-do the online environmental review.

Renee Krynock
 applicant/project proponent signature

5/16/19
 date



May 28, 2019

Ms. Sharon Yates
A.D. Marble
2200 Renaissance Blvd., Suite 260
King of Prussia, PA 19406

Project Search ID: PNDI-682258
PNDI Receipt: *project_receipt_pa_turnpike_its_project_s_682258_FINAL_1.pdf*
Re: P.A. Turnpike I.T.S. Project – Somerset Service Plaza
Somerset Township/Municipality, Somerset County, PA

Dear Ms. Yates,

Thank you for submitting the Pennsylvania Natural Diversity Inventory (PNDI) Environmental Review Receipt *project_receipt_pa_turnpike_its_project_s_682258_FINAL_1.pdf* for review. The Pennsylvania Game Commission (PGC) screened this project for potential impacts to species and resources of concern under PGC responsibility, which includes birds and mammals only.

No Impact Anticipated

PNDI records indicate species or resources of concern are located in the vicinity of the project. However, based on the information you submitted concerning the nature of the project, the immediate location, and our detailed resource information, the PGC has determined that no impact is likely. Therefore, no further coordination with the PGC will be necessary for this project at this time.

This response represents the most up-to-date summary of the PNDI data files and is valid for two (2) years from the date of this letter. An absence of recorded information does not necessarily imply actual conditions on site. Should project plans change or additional information on listed or proposed species become available, this determination may be reconsidered.

Should the proposed work continue beyond the period covered by this letter, please resubmit the project to this agency as an “Update” (including an updated PNDI receipt, project narrative and accurate map). If the proposed work has not changed and no additional information concerning listed species is found, the project will be cleared for PNDI requirements under this agency for two additional years.

This finding applies to impacts to birds and mammals only. To complete your review of state and federally-listed threatened and endangered species and species of special concern, please be sure that the U.S. Fish and Wildlife Service, the PA Department of Conservation and Natural

Ms. Sharon Yates

-2-

May 28, 2019

Resources, and/or the PA Fish and Boat Commission have been contacted regarding this project as directed by the online PNDI ER Tool found at www.naturalheritage.state.pa.us.

Sincerely,



Tracey Librandi Mumma
Division of Environmental Planning & Habitat Protection
Bureau of Wildlife Habitat Management
Phone: 717-787-4250, Extension 3614
Fax: 717-787-6957
E-mail: tlibrandi@pa.gov

A PNHP Partner



TLM/tlm

Appendix T - RFP# 19-10480-8386

Pennsylvania Department of Conservation and Natural Resources

Project Search ID: PNDI-682257

PNDI Receipt: project_receipt_pa_turnpike_its_project_m_682257_FINAL_1.pdf

1. PROJECT INFORMATION

Project Name: **P.A. Turnpike I.T.S. Project - Midway Service Plaza**

Date of Review: **4/17/2019 12:01:29 PM**

Project Category: **Communication, Other**

Project Area: **20.91 acres**

County(s): **Bedford**

Township/Municipality(s): **BEDFORD**

ZIP Code: **15522**

Quadrangle Name(s): **BEDFORD; EVERETT WEST**

Watersheds HUC 8: **Raystown**

Watersheds HUC 12: **Lower Dunning Creek**

Decimal Degrees: **40.029995, -78.492577**

Degrees Minutes Seconds: **40° 1' 47.9828" N, 78° 29' 33.2774" W**

2. SEARCH RESULTS

Agency	Results	Response
PA Game Commission	No Known Impact	No Further Review Required
PA Department of Conservation and Natural Resources	No Known Impact	No Further Review Required
PA Fish and Boat Commission	No Known Impact	No Further Review Required
U.S. Fish and Wildlife Service	No Known Impact	No Further Review Required

As summarized above, Pennsylvania Natural Diversity Inventory (PNDI) records indicate no known impacts to threatened and endangered species and/or special concern species and resources within the project area. Therefore, based on the information you provided, no further coordination is required with the jurisdictional agencies. This response does not reflect potential agency concerns regarding impacts to other ecological resources, such as wetlands.

Appendix T - RFP# 19-10480-8386

P.A. Turnpike I.T.S. Project - Midway Service Plaza



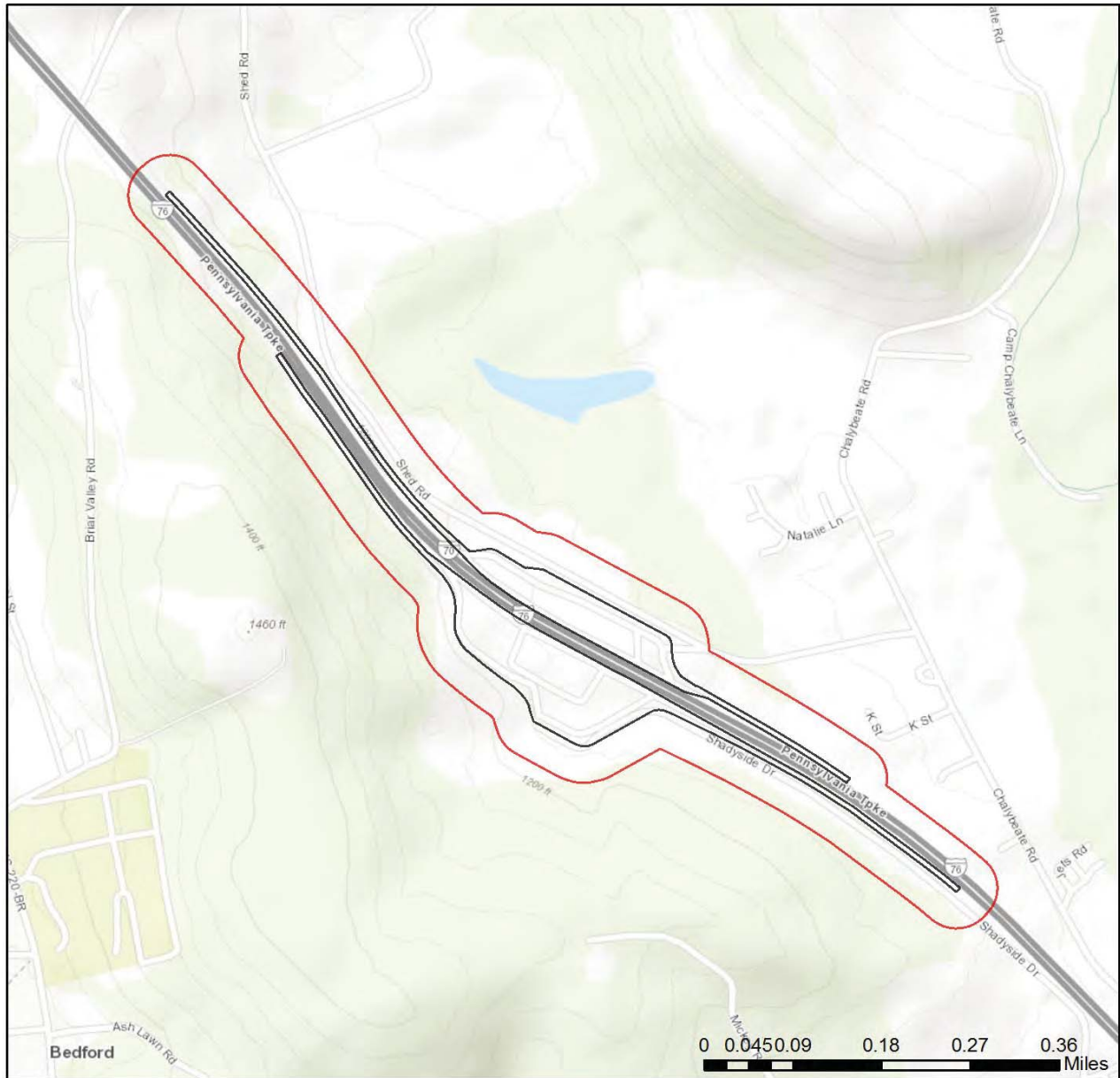
- Project Boundary
- Buffered Project Boundary

Service Layer Credits: Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community
Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community



Appendix T - RFP# 19-10480-8386

P.A. Turnpike I.T.S. Project - Midway Service Plaza



- Project Boundary
- Buffered Project Boundary

Service Layer Credits: Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community
 Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS,



3. AGENCY COMMENTS

Regardless of whether a DEP permit is necessary for this proposed project, any potential impacts to threatened and endangered species and/or special concern species and resources must be resolved with the appropriate jurisdictional agency. In some cases, a permit or authorization from the jurisdictional agency may be needed if adverse impacts to these species and habitats cannot be avoided.

These agency determinations and responses are **valid for two years** (from the date of the review), and are based on the project information that was provided, including the exact project location; the project type, description, and features; and any responses to questions that were generated during this search. If any of the following change: 1) project location, 2) project size or configuration, 3) project type, or 4) responses to the questions that were asked during the online review, the results of this review are not valid, and the review must be searched again via the PNDI Environmental Review Tool and resubmitted to the jurisdictional agencies. The PNDI tool is a primary screening tool, and a desktop review may reveal more or fewer impacts than what is listed on this PNDI receipt. The jurisdictional agencies **strongly advise against** conducting surveys for the species listed on the receipt prior to consultation with the agencies.

PA Game Commission

RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Department of Conservation and Natural Resources

RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Fish and Boat Commission

RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

U.S. Fish and Wildlife Service

RESPONSE:

No impacts to **federally** listed or proposed species are anticipated. Therefore, no further consultation/coordination under the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq. is required. Because no take of federally listed species is anticipated, none is authorized. This response does not reflect potential Fish and Wildlife Service concerns under the Fish and Wildlife Coordination Act or other authorities.

4. DEP INFORMATION

The Pa Department of Environmental Protection (DEP) requires that a signed copy of this receipt, along with any required documentation from jurisdictional agencies concerning resolution of potential impacts, be submitted with applications for permits requiring PNDI review. Two review options are available to permit applicants for handling PNDI coordination in conjunction with DEP's permit review process involving either T&E Species or species of special concern. Under sequential review, the permit applicant performs a PNDI screening and completes all coordination with the appropriate jurisdictional agencies prior to submitting the permit application. The applicant will include with its application, both a PNDI receipt and/or a clearance letter from the jurisdictional agency if the PNDI Receipt shows a Potential Impact to a species or the applicant chooses to obtain letters directly from the jurisdictional agencies. Under concurrent review, DEP, where feasible, will allow technical review of the permit to occur concurrently with the T&E species consultation with the jurisdictional agency. The applicant must still supply a copy of the PNDI Receipt with its permit application. The PNDI Receipt should also be submitted to the appropriate agency according to directions on the PNDI Receipt. The applicant and the jurisdictional agency will work together to resolve the potential impact(s). See the DEP PNDI policy at <https://conservationexplorer.dcnr.pa.gov/content/resources>.

Appendix T - RFP# 19-10480-8386

Pennsylvania Department of Conservation and Natural Resources
PNDI Receipt: project_receipt_pa_turnpike_its_project_m_682257_FINAL_1.pdf

Project Search ID: PNDI-682257

5. ADDITIONAL INFORMATION

The PNDI environmental review website is a preliminary screening tool. There are often delays in updating species status classifications. Because the proposed status represents the best available information regarding the conservation status of the species, state jurisdictional agency staff give the proposed statuses at least the same consideration as the current legal status. If surveys or further information reveal that a threatened and endangered and/or special concern species and resources exist in your project area, contact the appropriate jurisdictional agency/agencies immediately to identify and resolve any impacts.

For a list of species known to occur in the county where your project is located, please see the species lists by county found on the PA Natural Heritage Program (PNHP) home page (www.naturalheritage.state.pa.us). Also note that the PNDI Environmental Review Tool only contains information about species occurrences that have actually been reported to the PNHP.

6. AGENCY CONTACT INFORMATION

PA Department of Conservation and Natural Resources

Bureau of Forestry, Ecological Services Section
400 Market Street, PO Box 8552
Harrisburg, PA 17105-8552
Email: RA-HeritageReview@pa.gov

U.S. Fish and Wildlife Service

Pennsylvania Field Office
Endangered Species Section
110 Radnor Rd; Suite 101
State College, PA 16801
NO Faxes Please

PA Fish and Boat Commission

Division of Environmental Services
595 E. Rolling Ridge Dr., Bellefonte, PA 16823
Email: RA-FBPACENOTIFY@pa.gov

PA Game Commission

Bureau of Wildlife Habitat Management
Division of Environmental Planning and Habitat Protection
2001 Elmerton Avenue, Harrisburg, PA 17110-9797
Email: RA-PGC_PNDI@pa.gov
NO Faxes Please

7. PROJECT CONTACT INFORMATION

Name: Renee Krynock
Company/Business Name: A.D. Marble
Address: 1000 Gamma Drive, Suite 203
City, State, Zip: Pittsburgh, PA 15238
Phone: (412) 968-5977 Fax: (412) 968-5978
Email: rkrynock@admarble.com

8. CERTIFICATION

I certify that ALL of the project information contained in this receipt (including project location, project size/configuration, project type, answers to questions) is true, accurate and complete. In addition, if the project type, location, size or configuration changes, or if the answers to any questions that were asked during this online review change, I agree to re-do the online environmental review.

Renee Krynock
applicant/project proponent signature

4/17/19
date

Appendix T - RFP# 19-10480-8386

Pennsylvania Department of Conservation and Natural Resources

Project Search ID: PNDI-682121

PNDI Receipt: project_receipt_pa_turnpike_its_project_s_682121_FINAL_1.pdf

1. PROJECT INFORMATION

Project Name: **PA Turnpike I.T.S. Project - Sideling Hill Service Plaza**

Date of Review: **4/16/2019 10:08:44 AM**

Project Category: **Communication, Other**

Project Area: **42.33 acres**

County(s): **Fulton**

Township/Municipality(s): **TAYLOR**

ZIP Code: **16689**

Quadrangle Name(s): **HUSTONTOWN**

Watersheds HUC 8: **Lower Juniata**

Watersheds HUC 12: **Wooden Bridge Creek**

Decimal Degrees: **40.058064, -78.082050**

Degrees Minutes Seconds: **40° 3' 29.287" N, 78° 4' 55.3796" W**

2. SEARCH RESULTS



Agency	Results	Response
PA Game Commission	No Known Impact	No Further Review Required
PA Department of Conservation and Natural Resources	No Known Impact	No Further Review Required
PA Fish and Boat Commission	No Known Impact	No Further Review Required
U.S. Fish and Wildlife Service	No Known Impact	No Further Review Required

As summarized above, Pennsylvania Natural Diversity Inventory (PNDI) records indicate no known impacts to threatened and endangered species and/or special concern species and resources within the project area. Therefore, based on the information you provided, no further coordination is required with the jurisdictional agencies. This response does not reflect potential agency concerns regarding impacts to other ecological resources, such as wetlands.

Appendix T - RFP# 19-10480-8386

PA Turnpike I.T.S. Project - Sideling Hill Service Plaza



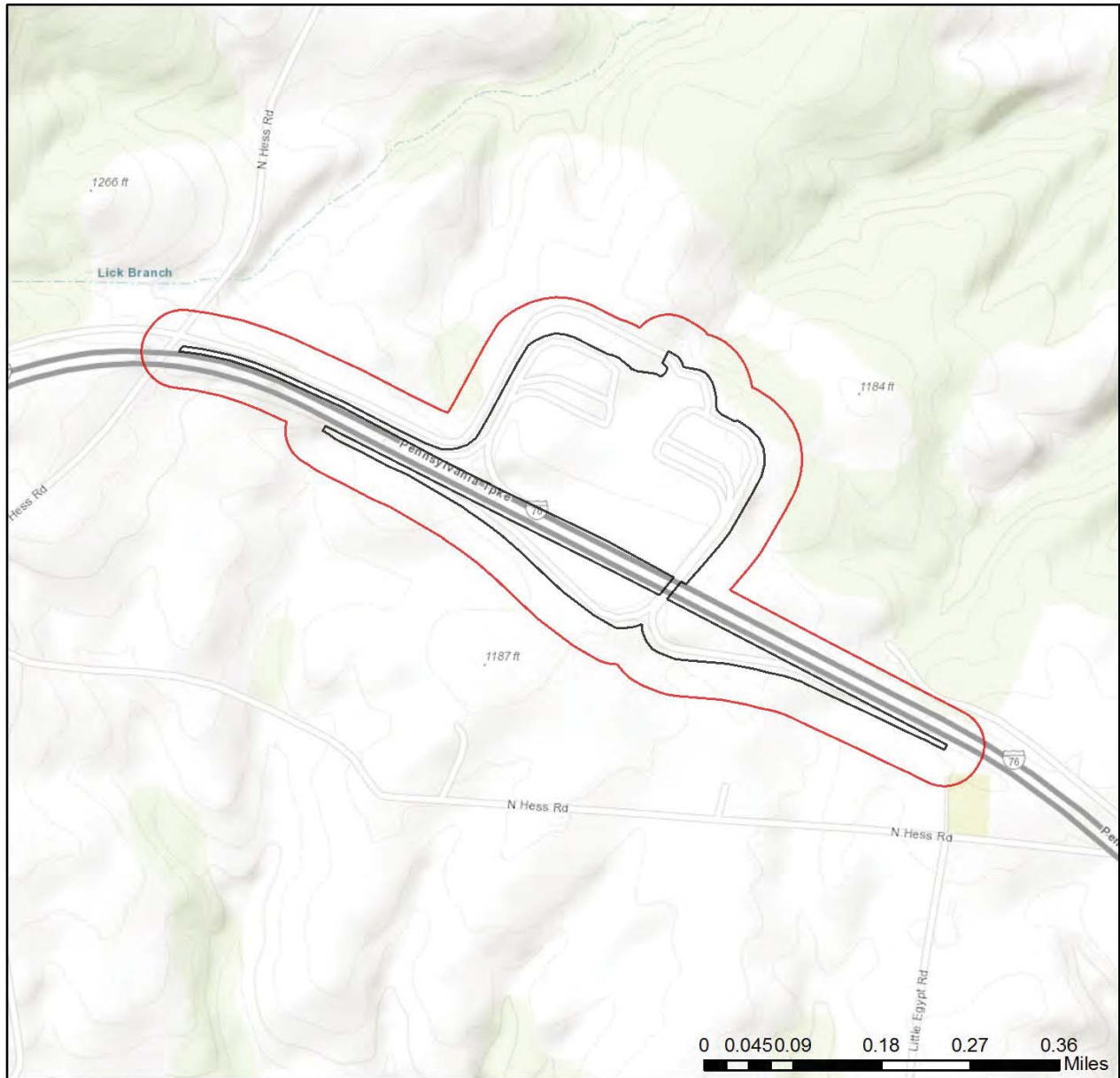
-  Project Boundary
-  Buffered Project Boundary



Service Layer Credits: Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community
Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community

Appendix T - RFP# 19-10480-8386

PA Turnpike I.T.S. Project - Sideling Hill Service Plaza



- Project Boundary
- Buffered Project Boundary

Service Layer Credits: Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community
Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS,



3. AGENCY COMMENTS

Regardless of whether a DEP permit is necessary for this proposed project, any potential impacts to threatened and endangered species and/or special concern species and resources must be resolved with the appropriate jurisdictional agency. In some cases, a permit or authorization from the jurisdictional agency may be needed if adverse impacts to these species and habitats cannot be avoided.

These agency determinations and responses are **valid for two years** (from the date of the review), and are based on the project information that was provided, including the exact project location; the project type, description, and features; and any responses to questions that were generated during this search. If any of the following change: 1) project location, 2) project size or configuration, 3) project type, or 4) responses to the questions that were asked during the online review, the results of this review are not valid, and the review must be searched again via the PNDI Environmental Review Tool and resubmitted to the jurisdictional agencies. The PNDI tool is a primary screening tool, and a desktop review may reveal more or fewer impacts than what is listed on this PNDI receipt. The jurisdictional agencies **strongly advise against** conducting surveys for the species listed on the receipt prior to consultation with the agencies.

PA Game Commission

RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Department of Conservation and Natural Resources

RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Fish and Boat Commission

RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

U.S. Fish and Wildlife Service

RESPONSE:

No impacts to **federally** listed or proposed species are anticipated. Therefore, no further consultation/coordination under the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq. is required. Because no take of federally listed species is anticipated, none is authorized. This response does not reflect potential Fish and Wildlife Service concerns under the Fish and Wildlife Coordination Act or other authorities.

4. DEP INFORMATION

The Pa Department of Environmental Protection (DEP) requires that a signed copy of this receipt, along with any required documentation from jurisdictional agencies concerning resolution of potential impacts, be submitted with applications for permits requiring PNDI review. Two review options are available to permit applicants for handling PNDI coordination in conjunction with DEP's permit review process involving either T&E Species or species of special concern. Under sequential review, the permit applicant performs a PNDI screening and completes all coordination with the appropriate jurisdictional agencies prior to submitting the permit application. The applicant will include with its application, both a PNDI receipt and/or a clearance letter from the jurisdictional agency if the PNDI Receipt shows a Potential Impact to a species or the applicant chooses to obtain letters directly from the jurisdictional agencies. Under concurrent review, DEP, where feasible, will allow technical review of the permit to occur concurrently with the T&E species consultation with the jurisdictional agency. The applicant must still supply a copy of the PNDI Receipt with its permit application. The PNDI Receipt should also be submitted to the appropriate agency according to directions on the PNDI Receipt. The applicant and the jurisdictional agency will work together to resolve the potential impact(s). See the DEP PNDI policy at <https://conservationexplorer.dcnr.pa.gov/content/resources>.

5. ADDITIONAL INFORMATION

The PNDI environmental review website is a preliminary screening tool. There are often delays in updating species status classifications. Because the proposed status represents the best available information regarding the conservation status of the species, state jurisdictional agency staff give the proposed statuses at least the same consideration as the current legal status. If surveys or further information reveal that a threatened and endangered and/or special concern species and resources exist in your project area, contact the appropriate jurisdictional agency/agencies immediately to identify and resolve any impacts.

For a list of species known to occur in the county where your project is located, please see the species lists by county found on the PA Natural Heritage Program (PNHP) home page (www.naturalheritage.state.pa.us). Also note that the PNDI Environmental Review Tool only contains information about species occurrences that have actually been reported to the PNHP.

6. AGENCY CONTACT INFORMATION**PA Department of Conservation and Natural Resources**

Bureau of Forestry, Ecological Services Section
400 Market Street, PO Box 8552
Harrisburg, PA 17105-8552
Email: RA-HeritageReview@pa.gov

U.S. Fish and Wildlife Service

Pennsylvania Field Office
Endangered Species Section
110 Radnor Rd; Suite 101
State College, PA 16801
NO Faxes Please

PA Fish and Boat Commission

Division of Environmental Services
595 E. Rolling Ridge Dr., Bellefonte, PA 16823
Email: RA-FBPACENOTIFY@pa.gov

PA Game Commission

Bureau of Wildlife Habitat Management
Division of Environmental Planning and Habitat Protection
2001 Elmerton Avenue, Harrisburg, PA 17110-9797
Email: RA-PGC_PNDI@pa.gov
NO Faxes Please

7. PROJECT CONTACT INFORMATION

Name: Abigail Koenig
Company/Business Name: A-D Marble
Address: 3913 Hartzdale Dr, Suite 1302
City, State, Zip: Camp Hill, PA 17011
Phone: (717) 971-1908 Fax: (717) 731-9170
Email: akoenig@admarble.com

8. CERTIFICATION

I certify that ALL of the project information contained in this receipt (including project location, project size/configuration, project type, answers to questions) is true, accurate and complete. In addition, if the project type, location, size or configuration changes, or if the answers to any questions that were asked during this online review change, I agree to re-do the online environmental review.

Abigail Koenig
applicant/project proponent signature

4/16/19
date

Appendix T - RFP# 19-10480-8386

Pennsylvania Department of Conservation and Natural Resources

Project Search ID: PNDI-682162

PNDI Receipt: project_receipt_pa_turnpike_its_project_b_682162_FINAL_1.pdf

1. PROJECT INFORMATION

Project Name: **PA Turnpike I.T.S. Project - Blue Mountain Service Plaza**

Date of Review: **4/16/2019 11:16:50 AM**

Project Category: **Communication, Other**

Project Area: **13.92 acres**

County(s): **Cumberland**

Township/Municipality(s): **HOPEWELL**

ZIP Code: **17240**

Quadrangle Name(s): **NEWBURG**

Watersheds HUC 8: **Lower Susquehanna-Swatara**

Watersheds HUC 12: **Three Square Hollow Run-Conodoguinet Creek**

Decimal Degrees: **40.166105, -77.596423**

Degrees Minutes Seconds: **40° 9' 57.9781" N, 77° 35' 47.1214" W**

2. SEARCH RESULTS

Agency	Results	Response
PA Game Commission	No Known Impact	No Further Review Required
PA Department of Conservation and Natural Resources	No Known Impact	No Further Review Required
PA Fish and Boat Commission	No Known Impact	No Further Review Required
U.S. Fish and Wildlife Service	No Known Impact	No Further Review Required

As summarized above, Pennsylvania Natural Diversity Inventory (PNDI) records indicate no known impacts to threatened and endangered species and/or special concern species and resources within the project area. Therefore, based on the information you provided, no further coordination is required with the jurisdictional agencies. This response does not reflect potential agency concerns regarding impacts to other ecological resources, such as wetlands.

Appendix T - RFP# 19-10480-8386

PA Turnpike I.T.S. Project - Blue Mountain Service Plaza



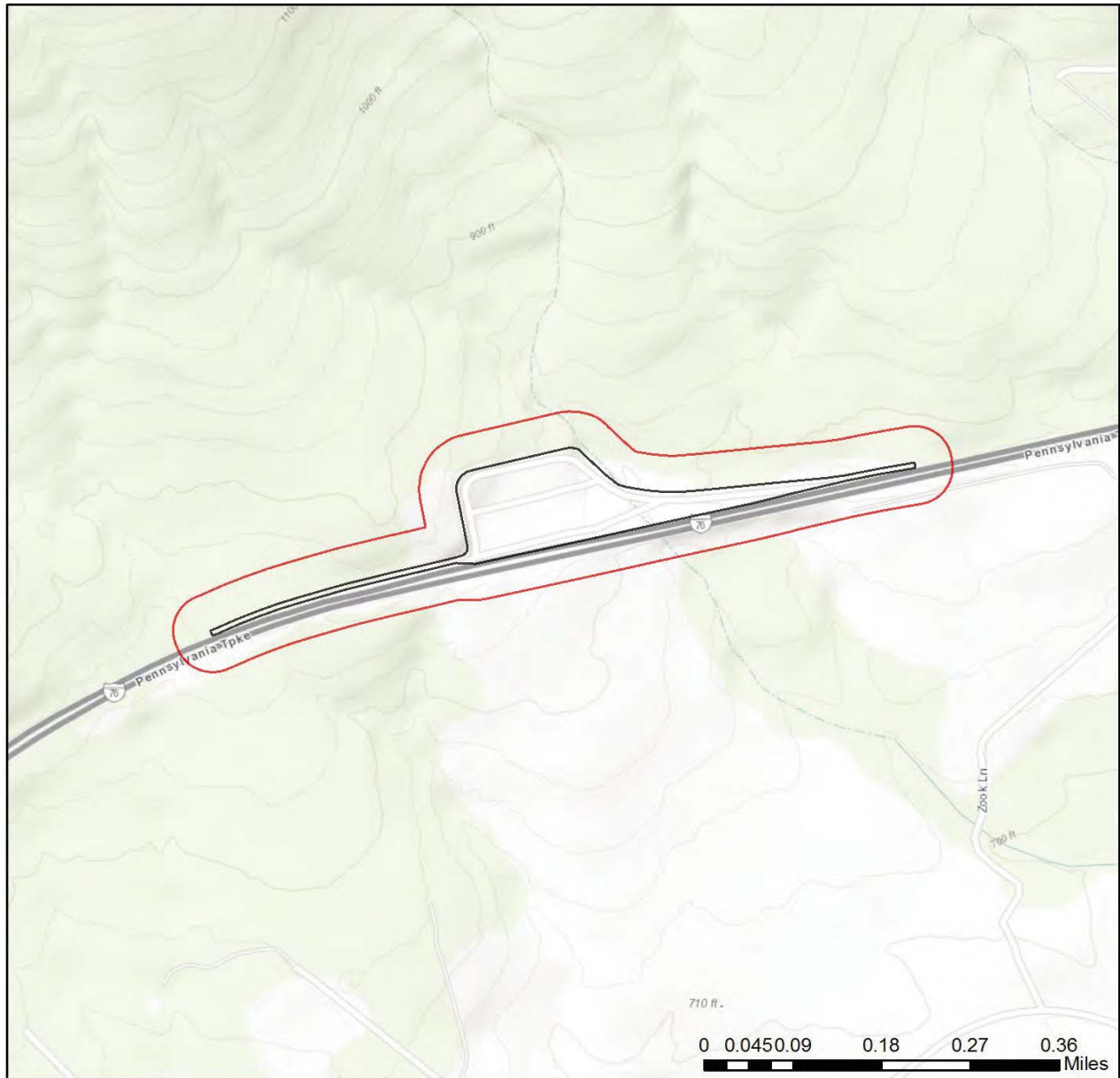
- Project Boundary
- Buffered Project Boundary

Service Layer Credits: Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community
Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community



Appendix T - RFP# 19-10480-8386

PA Turnpike I.T.S. Project - Blue Mountain Service Plaza



- Project Boundary
- Buffered Project Boundary

Service Layer Credits: Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community
Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS,



3. AGENCY COMMENTS

Regardless of whether a DEP permit is necessary for this proposed project, any potential impacts to threatened and endangered species and/or special concern species and resources must be resolved with the appropriate jurisdictional agency. In some cases, a permit or authorization from the jurisdictional agency may be needed if adverse impacts to these species and habitats cannot be avoided.

These agency determinations and responses are **valid for two years** (from the date of the review), and are based on the project information that was provided, including the exact project location; the project type, description, and features; and any responses to questions that were generated during this search. If any of the following change: 1) project location, 2) project size or configuration, 3) project type, or 4) responses to the questions that were asked during the online review, the results of this review are not valid, and the review must be searched again via the PNDI Environmental Review Tool and resubmitted to the jurisdictional agencies. The PNDI tool is a primary screening tool, and a desktop review may reveal more or fewer impacts than what is listed on this PNDI receipt. The jurisdictional agencies **strongly advise against** conducting surveys for the species listed on the receipt prior to consultation with the agencies.

PA Game Commission

RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Department of Conservation and Natural Resources

RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Fish and Boat Commission

RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

U.S. Fish and Wildlife Service

RESPONSE:

No impacts to **federally** listed or proposed species are anticipated. Therefore, no further consultation/coordination under the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq. is required. Because no take of federally listed species is anticipated, none is authorized. This response does not reflect potential Fish and Wildlife Service concerns under the Fish and Wildlife Coordination Act or other authorities.

4. DEP INFORMATION

The Pa Department of Environmental Protection (DEP) requires that a signed copy of this receipt, along with any required documentation from jurisdictional agencies concerning resolution of potential impacts, be submitted with applications for permits requiring PNDI review. Two review options are available to permit applicants for handling PNDI coordination in conjunction with DEP's permit review process involving either T&E Species or species of special concern. Under sequential review, the permit applicant performs a PNDI screening and completes all coordination with the appropriate jurisdictional agencies prior to submitting the permit application. The applicant will include with its application, both a PNDI receipt and/or a clearance letter from the jurisdictional agency if the PNDI Receipt shows a Potential Impact to a species or the applicant chooses to obtain letters directly from the jurisdictional agencies. Under concurrent review, DEP, where feasible, will allow technical review of the permit to occur concurrently with the T&E species consultation with the jurisdictional agency. The applicant must still supply a copy of the PNDI Receipt with its permit application. The PNDI Receipt should also be submitted to the appropriate agency according to directions on the PNDI Receipt. The applicant and the jurisdictional agency will work together to resolve the potential impact(s). See the DEP PNDI policy at <https://conservationexplorer.dcnr.pa.gov/content/resources>.

5. ADDITIONAL INFORMATION

The PNDI environmental review website is a preliminary screening tool. There are often delays in updating species status classifications. Because the proposed status represents the best available information regarding the conservation status of the species, state jurisdictional agency staff give the proposed statuses at least the same consideration as the current legal status. If surveys or further information reveal that a threatened and endangered and/or special concern species and resources exist in your project area, contact the appropriate jurisdictional agency/agencies immediately to identify and resolve any impacts.

For a list of species known to occur in the county where your project is located, please see the species lists by county found on the PA Natural Heritage Program (PNHP) home page (www.naturalheritage.state.pa.us). Also note that the PNDI Environmental Review Tool only contains information about species occurrences that have actually been reported to the PNHP.

6. AGENCY CONTACT INFORMATION**PA Department of Conservation and Natural Resources**

Bureau of Forestry, Ecological Services Section
400 Market Street, PO Box 8552
Harrisburg, PA 17105-8552
Email: RA-HeritageReview@pa.gov

PA Fish and Boat Commission

Division of Environmental Services
595 E. Rolling Ridge Dr., Bellefonte, PA 16823
Email: RA-FBPACENOTIFY@pa.gov

U.S. Fish and Wildlife Service

Pennsylvania Field Office
Endangered Species Section
110 Radnor Rd; Suite 101
State College, PA 16801
NO Faxes Please

PA Game Commission

Bureau of Wildlife Habitat Management
Division of Environmental Planning and Habitat Protection
2001 Elmerton Avenue, Harrisburg, PA 17110-9797
Email: RA-PGC_PNDI@pa.gov
NO Faxes Please

7. PROJECT CONTACT INFORMATION

Name: Abigail Koenig
Company/Business Name: A.D. Marble
Address: 3913 Hartzdale Dr, Suite 1302
City, State, Zip: Camp Hill, PA 17011
Phone: (717) 971-1908 Fax: (717) 731-1170
Email: akoenig@admarble.com

8. CERTIFICATION

I certify that ALL of the project information contained in this receipt (including project location, project size/configuration, project type, answers to questions) is true, accurate and complete. In addition, if the project type, location, size or configuration changes, or if the answers to any questions that were asked during this online review change, I agree to re-do the online environmental review.

Abigail Koenig
applicant/project proponent signature

4/16/19
date

Appendix T - RFP# 19-10480-8386

Pennsylvania Department of Conservation and Natural Resources
PNDI Receipt: project_receipt_cumberland_valley_service_682784_FINAL_1.pdf

Project Search ID: PNDI-682784

1. PROJECT INFORMATION

Project Name: **Cumberland Valley Service Plaza - PTC Project**

Date of Review: **4/24/2019 04:14:23 PM**

Project Category: **Communication, Other**

Project Area: **13.08 acres**

County(s): **Cumberland**

Township/Municipality(s): **WEST PENNSBORO**

ZIP Code: **17013**

Quadrangle Name(s): **PLAINFIELD**

Watersheds HUC 8: **Lower Susquehanna-Swatara**

Watersheds HUC 12: **Mount Rock Spring Creek; Wertz Run-Conodoguinet Creek**

Decimal Degrees: **40.205194, -77.288037**

Degrees Minutes Seconds: **40° 12' 18.6977" N, 77° 17' 16.9328" W**

2. SEARCH RESULTS

Agency	Results	Response
PA Game Commission	No Known Impact	No Further Review Required
PA Department of Conservation and Natural Resources	No Known Impact	No Further Review Required
PA Fish and Boat Commission	No Known Impact	No Further Review Required
U.S. Fish and Wildlife Service	No Known Impact	No Further Review Required

As summarized above, Pennsylvania Natural Diversity Inventory (PNDI) records indicate no known impacts to threatened and endangered species and/or special concern species and resources within the project area. Therefore, based on the information you provided, no further coordination is required with the jurisdictional agencies. This response does not reflect potential agency concerns regarding impacts to other ecological resources, such as wetlands.

Appendix T - RFP# 19-10480-8386

Cumberland Valley Service Plaza - PTC Project



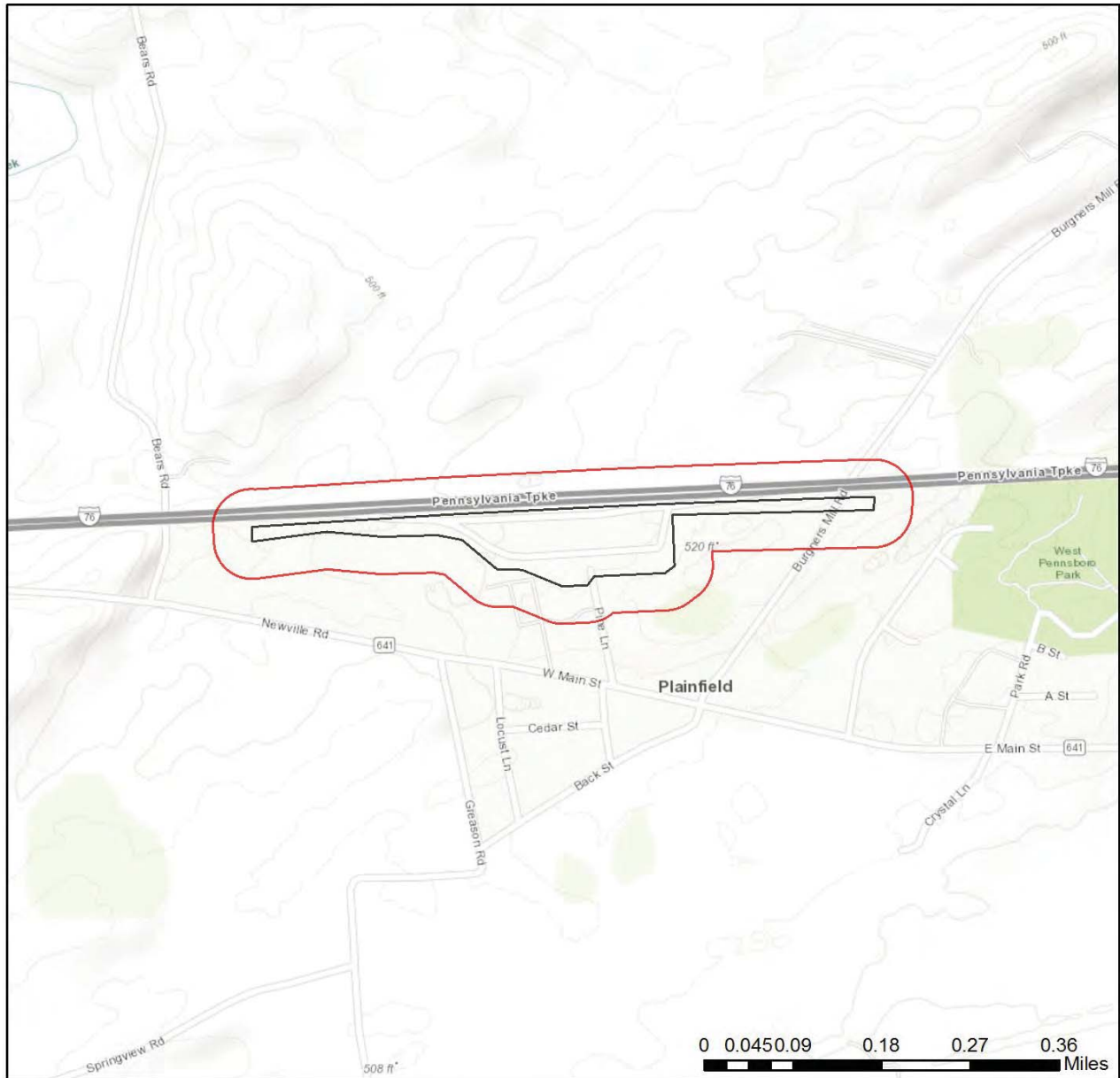
- Project Boundary
- Buffered Project Boundary

Service Layer Credits: Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community
Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community



Appendix T - RFP# 19-10480-8386

Cumberland Valley Service Plaza - PTC Project



- Project Boundary
- Buffered Project Boundary

Service Layer Credits: Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community
 Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS,



3. AGENCY COMMENTS

Regardless of whether a DEP permit is necessary for this proposed project, any potential impacts to threatened and endangered species and/or special concern species and resources must be resolved with the appropriate jurisdictional agency. In some cases, a permit or authorization from the jurisdictional agency may be needed if adverse impacts to these species and habitats cannot be avoided.

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PA Game Commission

RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Department of Conservation and Natural Resources

RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Fish and Boat Commission

RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

U.S. Fish and Wildlife Service

RESPONSE:

No impacts to **federally** listed or proposed species are anticipated. Therefore, no further consultation/coordination under the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq. is required. Because no take of federally listed species is anticipated, none is authorized. This response does not reflect potential Fish and Wildlife Service concerns under the Fish and Wildlife Coordination Act or other authorities.

4. DEP INFORMATION

The Pa Department of Environmental Protection (DEP) requires that a signed copy of this receipt, along with any required documentation from jurisdictional agencies concerning resolution of potential impacts, be submitted with applications for permits requiring PNDI review. Two review options are available to permit applicants for handling PNDI coordination in conjunction with DEP's permit review process involving either T&E Species or species of special concern. Under sequential review, the permit applicant performs a PNDI screening and completes all coordination with the appropriate jurisdictional agencies prior to submitting the permit application. The applicant will include with its application, both a PNDI receipt and/or a clearance letter from the jurisdictional agency if the PNDI Receipt shows a Potential Impact to a species or the applicant chooses to obtain letters directly from the jurisdictional agencies. Under concurrent review, DEP, where feasible, will allow technical review of the permit to occur concurrently with the T&E species consultation with the jurisdictional agency. The applicant must still supply a copy of the PNDI Receipt with its permit application. The PNDI Receipt should also be submitted to the appropriate agency according to directions on the PNDI Receipt. The applicant and the jurisdictional agency will work together to resolve the potential impact(s). See the DEP PNDI policy at <https://conservationexplorer.dcnr.pa.gov/content/resources>.

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For a list of species known to occur in the county where your project is located, please see the species lists by county found on the PA Natural Heritage Program (PNHP) home page (www.naturalheritage.state.pa.us). Also note that the PNDI Environmental Review Tool only contains information about species occurrences that have actually been reported to the PNHP.

6. AGENCY CONTACT INFORMATION

PA Department of Conservation and Natural Resources

Bureau of Forestry, Ecological Services Section
 400 Market Street, PO Box 8552
 Harrisburg, PA 17105-8552
 Email: RA-HeritageReview@pa.gov

PA Fish and Boat Commission

Division of Environmental Services
 595 E. Rolling Ridge Dr., Bellefonte, PA 16823
 Email: RA-FBPACENOTIFY@pa.gov

U.S. Fish and Wildlife Service

Pennsylvania Field Office
 Endangered Species Section
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 State College, PA 16801
 NO Faxes Please

PA Game Commission

Bureau of Wildlife Habitat Management
 Division of Environmental Planning and Habitat Protection
 2001 Elmerton Avenue, Harrisburg, PA 17110-9797
 Email: RA-PGC_PNDI@pa.gov
 NO Faxes Please

7. PROJECT CONTACT INFORMATION

Name: NAMITA SINHA
 Company/Business Name: SUSQUEHANNA CIVIL INC.
 Address: 5D GRUMBACHER ROAD, SUITE 10
 City, State, Zip: YORK, PA, 17406
 Phone: (717) 846-7151 Fax: (717) 846-7231
 Email: nsinha@sqcivil.com

8. CERTIFICATION

I certify that ALL of the project information contained in this receipt (including project location, project size/configuration, project type, answers to questions) is true, accurate and complete. In addition, if the project type, location, size or configuration changes, or if the answers to any questions that were asked during this online review change, I agree to re-do the online environmental review.

Namita Sinha
 applicant/project proponent signature

04/24/19
 date

Appendix T - RFP# 19-10480-8386

1. PROJECT INFORMATION

Project Name: **PA Turnpike I.T.S. Project - Highspire Service Plaza**

Date of Review: **4/16/2019 10:07:27 AM**

Project Category: **Communication, Other**

Project Area: **7.08 acres**

County(s): **Dauphin**

Township/Municipality(s): **LOWER SWATARA**

ZIP Code: **17057**

Quadrangle Name(s): **MIDDLETOWN**

Watersheds HUC 8: **Lower Susquehanna-Swatara**

Watersheds HUC 12: **Laurel Run-Susquehanna River**

Decimal Degrees: **40.209913, -76.743002**

Degrees Minutes Seconds: **40° 12' 35.6864" N, 76° 44' 34.8064" W**

2. SEARCH RESULTS

Agency	Results	Response
PA Game Commission	No Known Impact	No Further Review Required
PA Department of Conservation and Natural Resources	No Known Impact	No Further Review Required
PA Fish and Boat Commission	No Known Impact	No Further Review Required
U.S. Fish and Wildlife Service	No Known Impact	No Further Review Required

As summarized above, Pennsylvania Natural Diversity Inventory (PNDI) records indicate no known impacts to threatened and endangered species and/or special concern species and resources within the project area. Therefore, based on the information you provided, no further coordination is required with the jurisdictional agencies. This response does not reflect potential agency concerns regarding impacts to other ecological resources, such as wetlands.

Appendix T - RFP# 19-10480-8386

PA Turnpike I.T.S. Project - Highspire Service Plaza



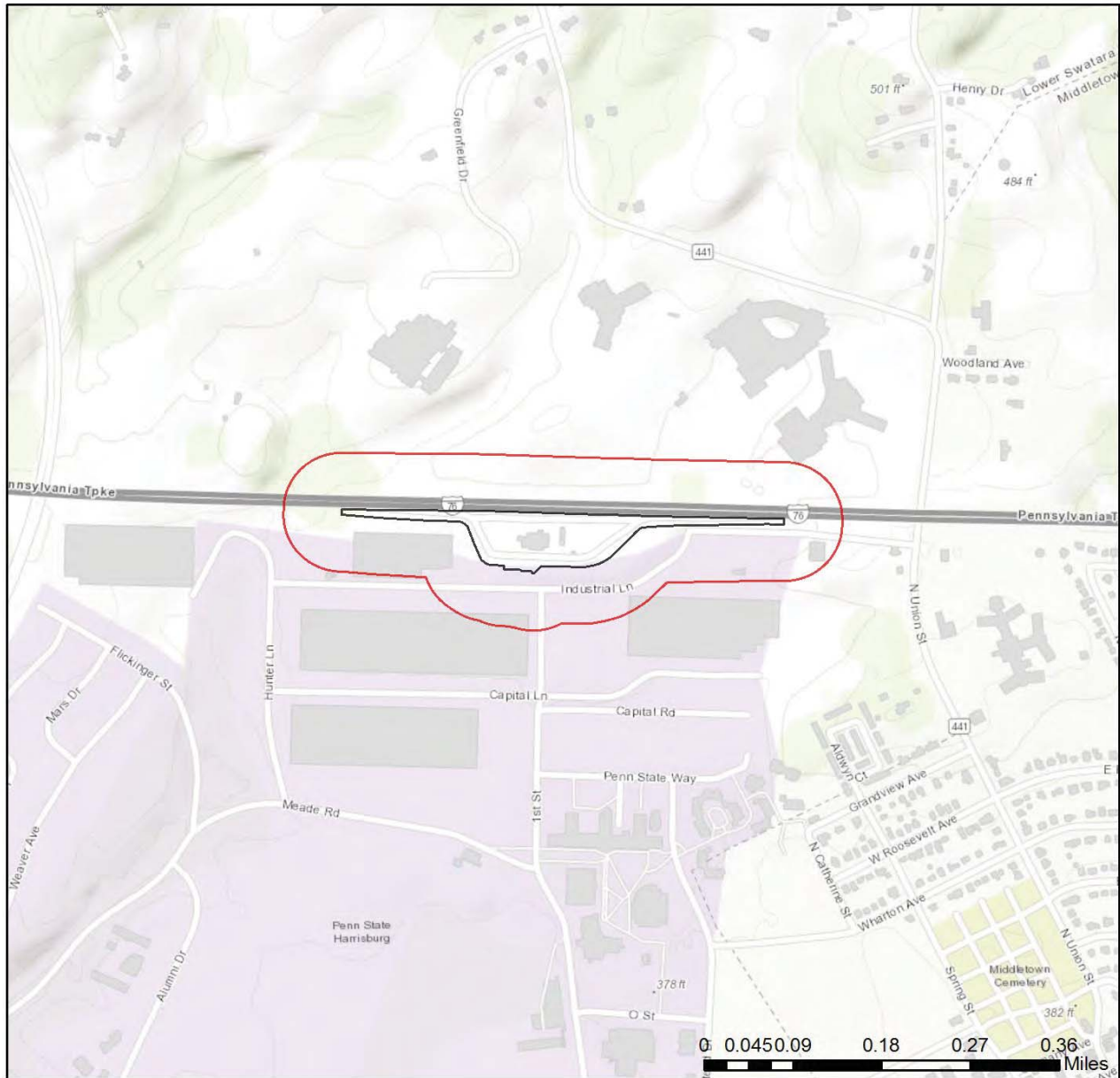
- Project Boundary
- Buffered Project Boundary



Service Layer Credits: Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community
Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community

Appendix T - RFP# 19-10480-8386

PA Turnpike I.T.S. Project - Highspire Service Plaza



- Project Boundary
- Buffered Project Boundary



Service Layer Credits: Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community
 Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS,

3. AGENCY COMMENTS

Regardless of whether a DEP permit is necessary for this proposed project, any potential impacts to threatened and endangered species and/or special concern species and resources must be resolved with the appropriate jurisdictional agency. In some cases, a permit or authorization from the jurisdictional agency may be needed if adverse impacts to these species and habitats cannot be avoided.

These agency determinations and responses are **valid for two years** (from the date of the review), and are based on the project information that was provided, including the exact project location; the project type, description, and features; and any responses to questions that were generated during this search. If any of the following change: 1) project location, 2) project size or configuration, 3) project type, or 4) responses to the questions that were asked during the online review, the results of this review are not valid, and the review must be searched again via the PNDI Environmental Review Tool and resubmitted to the jurisdictional agencies. The PNDI tool is a primary screening tool, and a desktop review may reveal more or fewer impacts than what is listed on this PNDI receipt. The jurisdictional agencies **strongly advise against** conducting surveys for the species listed on the receipt prior to consultation with the agencies.

PA Game Commission

RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Department of Conservation and Natural Resources

RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Fish and Boat Commission

RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

U.S. Fish and Wildlife Service

RESPONSE:

No impacts to **federally** listed or proposed species are anticipated. Therefore, no further consultation/coordination under the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq. is required. Because no take of federally listed species is anticipated, none is authorized. This response does not reflect potential Fish and Wildlife Service concerns under the Fish and Wildlife Coordination Act or other authorities.

4. DEP INFORMATION

The Pa Department of Environmental Protection (DEP) requires that a signed copy of this receipt, along with any required documentation from jurisdictional agencies concerning resolution of potential impacts, be submitted with applications for permits requiring PNDI review. Two review options are available to permit applicants for handling PNDI coordination in conjunction with DEP's permit review process involving either T&E Species or species of special concern. Under sequential review, the permit applicant performs a PNDI screening and completes all coordination with the appropriate jurisdictional agencies prior to submitting the permit application. The applicant will include with its application, both a PNDI receipt and/or a clearance letter from the jurisdictional agency if the PNDI Receipt shows a Potential Impact to a species or the applicant chooses to obtain letters directly from the jurisdictional agencies. Under concurrent review, DEP, where feasible, will allow technical review of the permit to occur concurrently with the T&E species consultation with the jurisdictional agency. The applicant must still supply a copy of the PNDI Receipt with its permit application. The PNDI Receipt should also be submitted to the appropriate agency according to directions on the PNDI Receipt. The applicant and the jurisdictional agency will work together to resolve the potential impact(s). See the DEP PNDI policy at <https://conservationexplorer.dcnr.pa.gov/content/resources>.

5. ADDITIONAL INFORMATION

The PNDI environmental review website is a preliminary screening tool. There are often delays in updating species status classifications. Because the proposed status represents the best available information regarding the conservation status of the species, state jurisdictional agency staff give the proposed statuses at least the same consideration as the current legal status. If surveys or further information reveal that a threatened and endangered and/or special concern species and resources exist in your project area, contact the appropriate jurisdictional agency/agencies immediately to identify and resolve any impacts.

For a list of species known to occur in the county where your project is located, please see the species lists by county found on the PA Natural Heritage Program (PNHP) home page (www.naturalheritage.state.pa.us). Also note that the PNDI Environmental Review Tool only contains information about species occurrences that have actually been reported to the PNHP.

6. AGENCY CONTACT INFORMATION**PA Department of Conservation and Natural Resources**

Bureau of Forestry, Ecological Services Section
400 Market Street, PO Box 8552
Harrisburg, PA 17105-8552
Email: RA-HeritageReview@pa.gov

U.S. Fish and Wildlife Service

Pennsylvania Field Office
Endangered Species Section
110 Radnor Rd; Suite 101
State College, PA 16801
NO Faxes Please

PA Fish and Boat Commission

Division of Environmental Services
595 E. Rolling Ridge Dr., Bellefonte, PA 16823
Email: RA-FBPACENOTIFY@pa.gov

PA Game Commission

Bureau of Wildlife Habitat Management
Division of Environmental Planning and Habitat Protection
2001 Elmerton Avenue, Harrisburg, PA 17110-9797
Email: RA-PGC_PNDI@pa.gov
NO Faxes Please

7. PROJECT CONTACT INFORMATION

Name: Abigail Koenig
Company/Business Name: A.D. Marble
Address: 3913 Hartzdale Dr., Suite 1302
City, State, Zip: Camp Hill, PA 17011
Phone: (717) 971-1908 Fax: (717) 731-1170
Email: akoenig@admarble.com

8. CERTIFICATION

I certify that ALL of the project information contained in this receipt (including project location, project size/configuration, project type, answers to questions) is true, accurate and complete. In addition, if the project type, location, size or configuration changes, or if the answers to any questions that were asked during this online review change, I agree to re-do the online environmental review.

Abigail Koenig
applicant/project proponent signature

4/15/19
date

Appendix T - RFP# 19-10480-8386

Pennsylvania Department of Conservation and Natural Resources

Project Search ID: PNDI-683572

PNDI Receipt: project_receipt_pa_turnpike_its_project_I_683572_FINAL_1.pdf

1. PROJECT INFORMATION

Project Name: **PA Turnpike I.T.S. Project - Lawn Service Plaza**

Date of Review: **5/10/2019 10:41:42 AM**

Project Category: **Communication, Other**

Project Area: **8.11 acres**

County(s): **Dauphin; Lebanon**

Township/Municipality(s): **CONEWAGO; SOUTH LONDONDERRY**

ZIP Code: **17033; 17078**

Quadrangle Name(s): **ELIZABETHTOWN**

Watersheds HUC 8: **Lower Susquehanna-Swatara**

Watersheds HUC 12: **Conewago Creek**

Decimal Degrees: **40.208090, -76.574621**

Degrees Minutes Seconds: **40° 12' 29.1245" N, 76° 34' 28.6367" W**

2. SEARCH RESULTS

Agency	Results	Response
PA Game Commission	No Known Impact	No Further Review Required
PA Department of Conservation and Natural Resources	No Known Impact	No Further Review Required
PA Fish and Boat Commission	No Known Impact	No Further Review Required
U.S. Fish and Wildlife Service	Potential Impact	MORE INFORMATION REQUIRED, See Agency Response

As summarized above, Pennsylvania Natural Diversity Inventory (PNDI) records indicate there may be potential impacts to threatened and endangered and/or special concern species and resources within the project area. If the response above indicates "No Further Review Required" no additional communication with the respective agency is required. If the response is "Further Review Required" or "See Agency Response," refer to the appropriate agency comments below. Please see the DEP Information Section of this receipt if a PA Department of Environmental Protection Permit is required.

Note that regardless of PNDI search results, projects requiring a Chapter 105 DEP individual permit or GP 5, 6, 7, 8, 9 or 11 must comply with the bog turtle habitat screening requirements of the PASPGP.

Appendix T - RFP# 19-10480-8386

PA Turnpike I.T.S. Project - Lawn Service Plaza



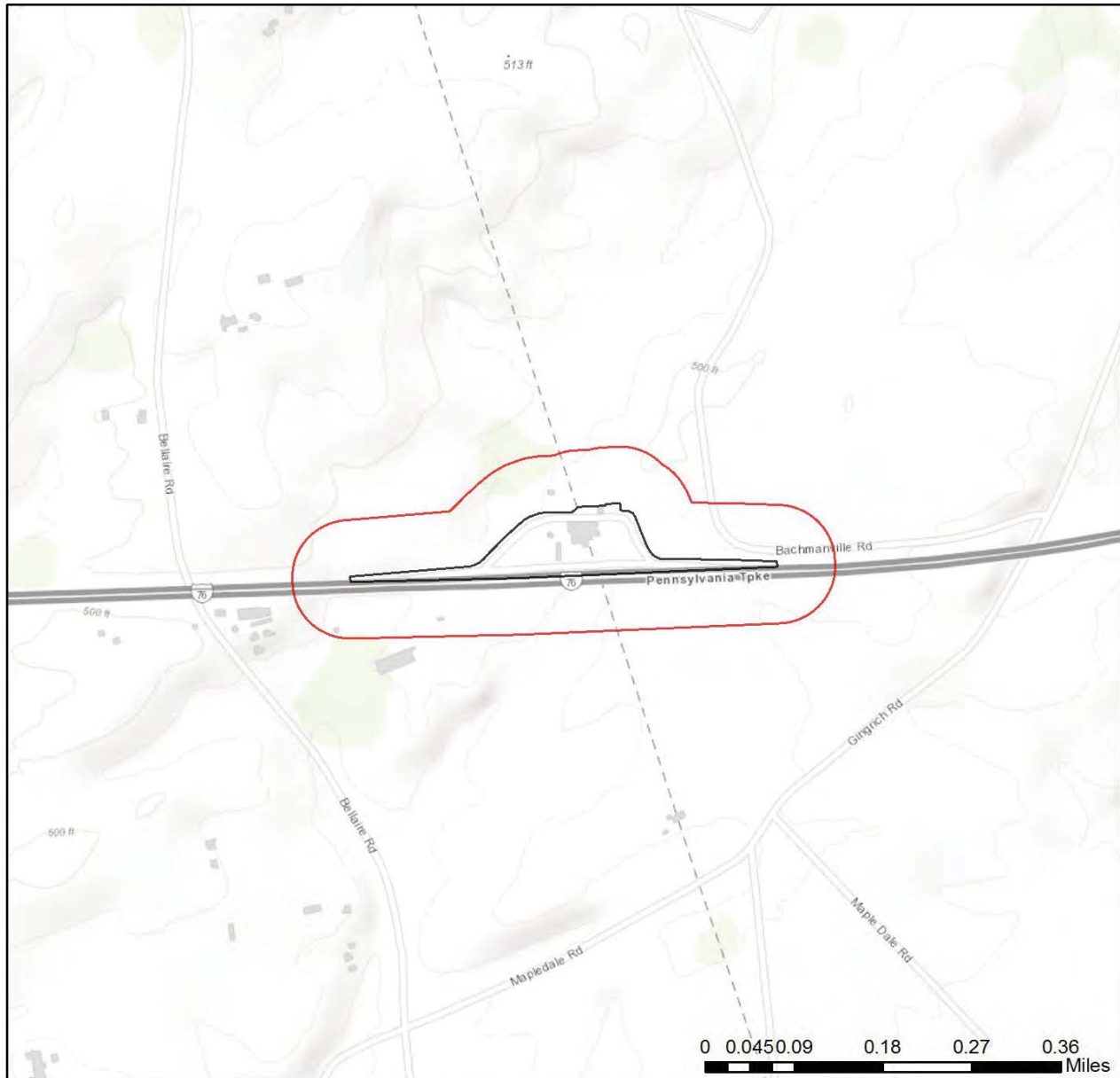
- Project Boundary
- Buffered Project Boundary



Service Layer Credits: Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community
Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community



Appendix T - RFP# 19-10480-8386

PA Turnpike I.T.S. Project - Lawn Service Plaza



-  Project Boundary
-  Buffered Project Boundary

Service Layer Credits: Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community
Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS,



RESPONSE TO QUESTION(S) ASKED

Q1: Will this project or any project-related activities require any in-stream work, or a permanent or temporary crossing of a waterway (stream, river, creek, tributary)?

Your answer is: No

Q2: Accurately describe what is known about wetland presence in the project area or on the land parcel by selecting ONE of the following. "Project" includes all features of the project (including buildings, roads, utility lines, outfall and intake structures, wells, stormwater retention/detention basins, parking lots, driveways, lawns, etc.), as well as all associated impacts (e.g., temporary staging areas, work areas, temporary road crossings, areas subject to grading or clearing, etc.). Include all areas that will be permanently or temporarily affected -- either directly or indirectly -- by any type of disturbance (e.g., land clearing, grading, tree removal, flooding, etc.). Land parcel = the lot(s) on which some type of project(s) or activity(s) are proposed to occur.

Your answer is: Someone qualified to identify and delineate wetlands has investigated the site, and determined that wetlands ARE located in or within 300 feet of the project area. (A written report from the wetland specialist, and detailed project maps should document this.)

3. AGENCY COMMENTS

Regardless of whether a DEP permit is necessary for this proposed project, any potential impacts to threatened and endangered species and/or special concern species and resources must be resolved with the appropriate jurisdictional agency. In some cases, a permit or authorization from the jurisdictional agency may be needed if adverse impacts to these species and habitats cannot be avoided.

These agency determinations and responses are **valid for two years** (from the date of the review), and are based on the project information that was provided, including the exact project location; the project type, description, and features; and any responses to questions that were generated during this search. If any of the following change: 1) project location, 2) project size or configuration, 3) project type, or 4) responses to the questions that were asked during the online review, the results of this review are not valid, and the review must be searched again via the PNDI Environmental Review Tool and resubmitted to the jurisdictional agencies. The PNDI tool is a primary screening tool, and a desktop review may reveal more or fewer impacts than what is listed on this PNDI receipt. The jurisdictional agencies **strongly advise against** conducting surveys for the species listed on the receipt prior to consultation with the agencies.

PA Game Commission**RESPONSE:**

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Department of Conservation and Natural Resources**RESPONSE:**

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Fish and Boat Commission**RESPONSE:**

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

U.S. Fish and Wildlife Service**RESPONSE:**

Appendix T - RFP# 19-10480-8386

Information Request: Conduct a Bog Turtle Habitat (Phase 1) Survey in accordance with USFWS Guidelines for Bog Turtle Surveys (April 2006). Evaluate all wetlands within 300 feet of the project area, which includes all areas that will be impacted by earth disturbance or project features (e.g., roads, structures, utility lines, lawns, detention basins, staging areas, etc.). IF THE PHASE 1 SURVEY IS DONE BY A QUALIFIED BOG TURTLE SURVEYOR (see <https://www.fws.gov/northeast/pafo/endangered/surveys.html>): 1) Send positive results to USFWS for concurrence, along with a project description documenting how impacts will be avoided. OR, conduct a Phase 2 survey and send Phase 1 and 2 results to USFWS for concurrence. 2) Send a courtesy copy of negative results to USFWS (label as "Negative Phase 1 Survey Results by Qualified Bog Turtle Surveyor: USFWS Courtesy Copy"). USFWS approval of negative results is not necessary when a qualified surveyor does the survey in full accordance with USFWS guidelines. IF THE PHASE 1 SURVEY IS NOT DONE BY A QUALIFIED SURVEYOR: Send ALL Phase 1 results to USFWS for concurrence, and if potential habitat is found, also send a project description documenting how impacts will be avoided. As a qualified bog turtle surveyor, I _____ (name) certify that I conducted a Phase 1 survey of all wetlands in and within 300 feet of the project area on _____ (date) and determined that bog turtle habitat is absent.

(Signature)

WHAT TO SEND TO JURISDICTIONAL AGENCIES

If project information was requested by one or more of the agencies above, upload* or email* the following information to the agency(s). Instructions for uploading project materials can be found [here](#). This option provides the applicant with the convenience of sending project materials to a single location accessible to all three state agencies. Alternatively, applicants may email or mail their project materials (see AGENCY CONTACT INFORMATION).

***Note:** U.S.Fish and Wildlife Service requires applicants to mail project materials to the USFWS PA field office (see AGENCY CONTACT INFORMATION). USFWS will not accept project materials submitted electronically (by upload or email).

Check-list of Minimum Materials to be submitted:

____ Project narrative with a description of the overall project, the work to be performed, current physical characteristics of the site and acreage to be impacted.

____ A map with the project boundary and/or a basic site plan (particularly showing the relationship of the project to the physical features such as wetlands, streams, ponds, rock outcrops, etc.)

In addition to the materials listed above, USFWS REQUIRES the following

____ **SIGNED** copy of a Final Project Environmental Review Receipt

The inclusion of the following information may expedite the review process.

____ Color photos keyed to the basic site plan (i.e. showing on the site plan where and in what direction each photo was taken and the date of the photos)

____ Information about the presence and location of wetlands in the project area, and how this was determined (e.g., by a qualified wetlands biologist), if wetlands are present in the project area, provide project plans showing the location of all project features, as well as wetlands and streams.

4. DEP INFORMATION

The Pa Department of Environmental Protection (DEP) requires that a signed copy of this receipt, along with any required documentation from jurisdictional agencies concerning resolution of potential impacts, be submitted with applications for permits requiring PNDI review. Two review options are available to permit applicants for handling PNDI coordination in conjunction with DEP's permit review process involving either T&E Species or species of special concern. Under sequential review, the permit applicant performs a PNDI screening and completes all coordination with the appropriate jurisdictional agencies prior to submitting the permit application. The applicant will include with its application, both a PNDI receipt and/or a clearance letter from the jurisdictional agency if the PNDI Receipt shows a Potential Impact to a species or the applicant chooses to obtain letters directly from the jurisdictional agencies. Under concurrent review, DEP, where feasible, will allow technical review of the permit to occur concurrently with the T&E species consultation with the jurisdictional agency. The applicant must still supply a copy of the PNDI Receipt with its permit application. The PNDI Receipt should also be submitted to the appropriate agency according to directions on the PNDI Receipt. The applicant and the jurisdictional agency will work together to resolve the potential impact(s). See the DEP PNDI policy at <https://conservationexplorer.dcnr.pa.gov/content/resources>.

5. ADDITIONAL INFORMATION

The PNDI environmental review website is a preliminary screening tool. There are often delays in updating species status classifications. Because the proposed status represents the best available information regarding the conservation status of the species, state jurisdictional agency staff give the proposed statuses at least the same consideration as the current legal status. If surveys or further information reveal that a threatened and endangered and/or special concern species and resources exist in your project area, contact the appropriate jurisdictional agency/agencies immediately to identify and resolve any impacts.

For a list of species known to occur in the county where your project is located, please see the species lists by county found on the PA Natural Heritage Program (PNHP) home page (www.naturalheritage.state.pa.us). Also note that the PNDI Environmental Review Tool only contains information about species occurrences that have actually been reported to the PNHP.

6. AGENCY CONTACT INFORMATION**PA Department of Conservation and Natural Resources**

Bureau of Forestry, Ecological Services Section
400 Market Street, PO Box 8552
Harrisburg, PA 17105-8552
Email: RA-HeritageReview@pa.gov

U.S. Fish and Wildlife Service

Pennsylvania Field Office
Endangered Species Section
110 Radnor Rd; Suite 101
State College, PA 16801
NO Faxes Please

PA Fish and Boat Commission

Division of Environmental Services
595 E. Rolling Ridge Dr., Bellefonte, PA 16823
Email: RA-FBPACENOTIFY@pa.gov

PA Game Commission

Bureau of Wildlife Habitat Management
Division of Environmental Planning and Habitat Protection
2001 Elmerton Avenue, Harrisburg, PA 17110-9797
Email: RA-PGC_PNDI@pa.gov
NO Faxes Please

7. PROJECT CONTACT INFORMATION

Name: Abigail Koenig
Company/Business Name: A.D. Marble
Address: 3913 Hartzdale Dr, Suite 1302
City, State, Zip: Camp Hill, PA 17011
Phone: (717) 971-1908 Fax: (717) 731-1170
Email: akoenig@admarble.com

8. CERTIFICATION

I certify that ALL of the project information contained in this receipt (including project location, project size/configuration, project type, answers to questions) is true, accurate and complete. In addition, if the project type, location, size or configuration changes, or if the answers to any questions that were asked during this online review change, I agree to re-do the online environmental review.

Abigail Koenig
applicant/project proponent signature

5/10/19
date

Appendix T - RFP# 19-10480-8386

PNDI # 2019-0870

USFWS Project # 2019-0870

U.S. FISH AND WILDLIFE SERVICE
110 Radnor Road, Suite 101, State College, PA 16801

This responds to your inquiry about a PNDI Internet Database search that resulted in a potential conflict with a federally listed, proposed or candidate species.

PROJECT LOCATION INFORMATION

County: Chester
Township: East Nantmeal and Wallace

MISC INFORMATION

Date received by FWS: May 2, 2019
ACTIVE ARCHIVE

USFWS COMMENTS [X] EMAILED [] MAILED

Email: ksommers@admarble.com

To: Kristen Sommers

Affiliation: A.D. Marble

SPECIFIC PROJECT: PA Turnpike Peter J Camiel Service Plaza ITS Equipment

FISH AND WILDLIFE SERVICE COMMENT(S):

X NOT LIKELY TO ADVERSELY AFFECT

The federally listed bog turtle occurs or may occur in or near the project area. However, based on our review of the information provided, including the project description and location (Detection equipment will be installed on paved acceleration and deceleration lanes. Close Circuit Cameras will be mounted on existing poles or new poles within the plaza. All wetland and waterway impacts will be avoided. Scope of work in paved areas only),

no adverse effects to this species are likely to occur. If there is any change in the location, scale, scope, layout or design of the project, further consultation or coordination with the Service will be necessary.

The above determination is valid for two years from the date of this letter. In addition, this response relates only to federally listed, proposed, and candidate species under our jurisdiction, based on an office review of the proposed project's location and anticipated impacts. No field inspection of the project area has been conducted by this office. Consequently, comments on this form are not to be construed as addressing other Service concerns under the Fish and Wildlife Coordination Act or other authorities. Please reference the above PNDI # and USFWS Project # in any future correspondence regarding this project.

This review was conducted by the biologist listed below. He/she can be contacted at 814-234-4090.

- Bonnie Dershem (x7453) Brian Scofield (x7471) Jennifer Kagel (x7451)
Melinda Turner (x7449) Nicole Ranalli (x7455) Pamela Shellenberger (x7459)

SIGNATURE: _____

Supervisor, Pennsylvania Field Office

Appendix T - RFP# 19-10480-8386

1. PROJECT INFORMATION

Project Name: **PA Turnpike I.T.S. Project - Bowmansville Service Plaza**

Date of Review: **4/16/2019 01:53:52 PM**

Project Category: **Communication, Other**

Project Area: **8.04 acres**

County(s): **Lancaster**

Township/Municipality(s): **BRECKNOCK**

ZIP Code: **17555**

Quadrangle Name(s): **TERRE HILL**

Watersheds HUC 8: **Lower Susquehanna**

Watersheds HUC 12: **Muddy Creek**

Decimal Degrees: **40.202313, -76.015275**

Degrees Minutes Seconds: **40° 12' 8.3260" N, 76° 0' 54.9916" W**

2. SEARCH RESULTS

Agency	Results	Response
PA Game Commission	No Known Impact	No Further Review Required
PA Department of Conservation and Natural Resources	No Known Impact	No Further Review Required
PA Fish and Boat Commission	No Known Impact	No Further Review Required
U.S. Fish and Wildlife Service	No Known Impact	No Further Review Required

As summarized above, Pennsylvania Natural Diversity Inventory (PNDI) records indicate no known impacts to threatened and endangered species and/or special concern species and resources within the project area. Therefore, based on the information you provided, no further coordination is required with the jurisdictional agencies. This response does not reflect potential agency concerns regarding impacts to other ecological resources, such as wetlands.

Note that regardless of PNDI search results, projects requiring a Chapter 105 DEP individual permit or GP 5, 6, 7, 8, 9 or 11 must comply with the bog turtle habitat screening requirements of the PASPGP.

Appendix T - RFP# 19-10480-8386

PA Turnpike I.T.S. Project - Bowmansville Service Plaza



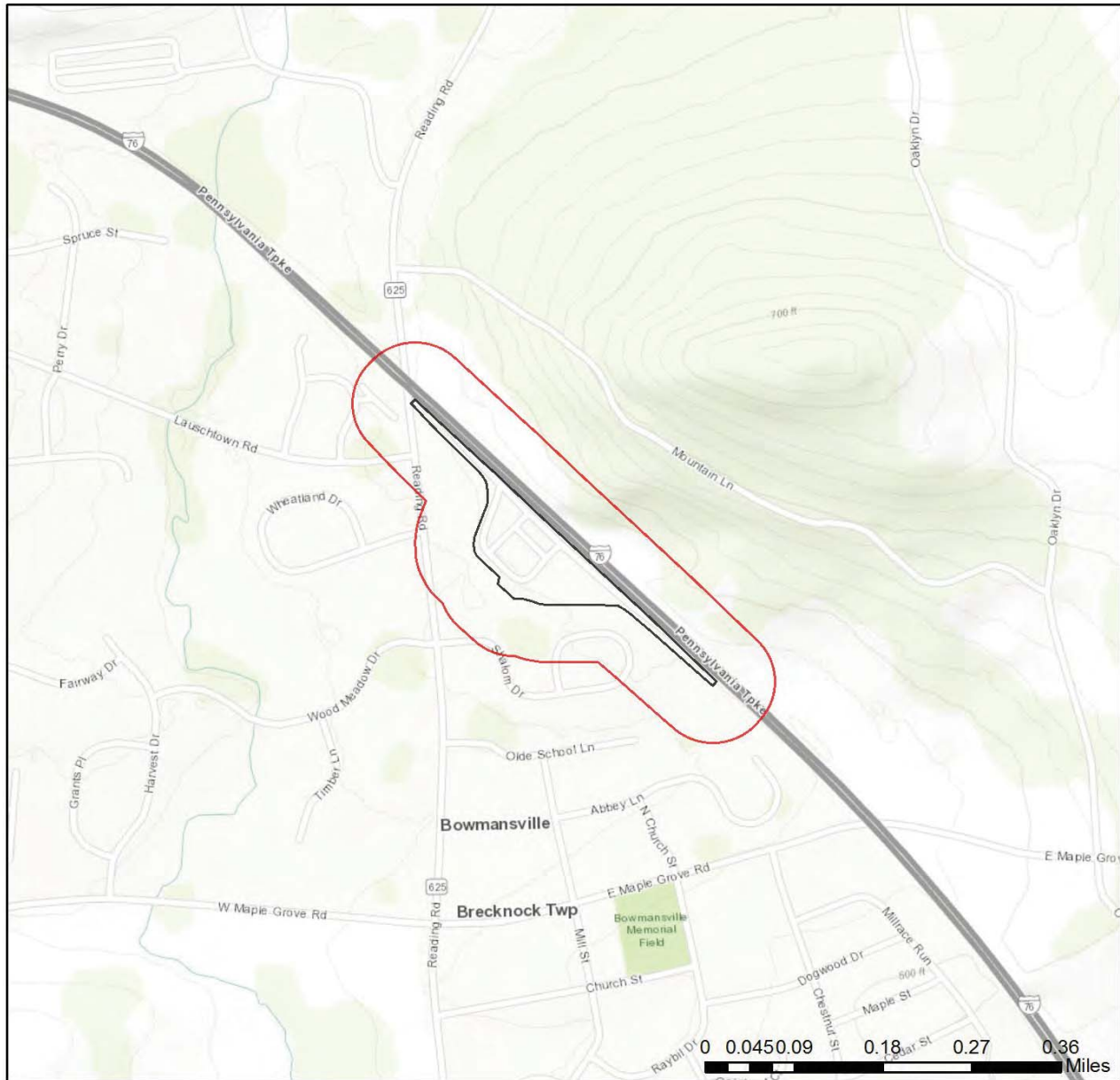
- Project Boundary
- Buffered Project Boundary

Service Layer Credits: Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community
Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community



Appendix T - RFP# 19-10480-8386

PA Turnpike I.T.S. Project - Bowmansville Service Plaza



- Project Boundary
- Buffered Project Boundary

Service Layer Credits: Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community
 Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS,



3. AGENCY COMMENTS

Regardless of whether a DEP permit is necessary for this proposed project, any potential impacts to threatened and endangered species and/or special concern species and resources must be resolved with the appropriate jurisdictional agency. In some cases, a permit or authorization from the jurisdictional agency may be needed if adverse impacts to these species and habitats cannot be avoided.

These agency determinations and responses are **valid for two years** (from the date of the review), and are based on the project information that was provided, including the exact project location; the project type, description, and features; and any responses to questions that were generated during this search. If any of the following change: 1) project location, 2) project size or configuration, 3) project type, or 4) responses to the questions that were asked during the online review, the results of this review are not valid, and the review must be searched again via the PNDI Environmental Review Tool and resubmitted to the jurisdictional agencies. The PNDI tool is a primary screening tool, and a desktop review may reveal more or fewer impacts than what is listed on this PNDI receipt. The jurisdictional agencies **strongly advise against** conducting surveys for the species listed on the receipt prior to consultation with the agencies.

PA Game Commission

RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Department of Conservation and Natural Resources

RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Fish and Boat Commission

RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

U.S. Fish and Wildlife Service

RESPONSE:

No impacts to **federally** listed or proposed species are anticipated. Therefore, no further consultation/coordination under the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq. is required. Because no take of federally listed species is anticipated, none is authorized. This response does not reflect potential Fish and Wildlife Service concerns under the Fish and Wildlife Coordination Act or other authorities.

4. DEP INFORMATION

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6. AGENCY CONTACT INFORMATION**PA Department of Conservation and Natural Resources**

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400 Market Street, PO Box 8552
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PA Game Commission

Bureau of Wildlife Habitat Management
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2001 Elmerton Avenue, Harrisburg, PA 17110-9797
Email: RA-PGC_PNDI@pa.gov
NO Faxes Please

7. PROJECT CONTACT INFORMATION

Name: Abigail Koenig
Company/Business Name: A.D. Marble
Address: 3913 Hartzdale Dr, Suite 1302
City, State, Zip: Camp Hill, PA 17011
Phone: (717) 971-1908 Fax: (717) 731-1170
Email: akoenig@admarble.com

8. CERTIFICATION

I certify that ALL of the project information contained in this receipt (including project location, project size/configuration, project type, answers to questions) is true, accurate and complete. In addition, if the project type, location, size or configuration changes, or if the answers to any questions that were asked during this online review change, I agree to re-do the online environmental review.

Abigail Koenig
applicant/project proponent signature

4/15/19
date

Appendix T - RFP# 19-10480-8386

Pennsylvania Department of Conservation and Natural Resources

Project Search ID: PNDI-682201

PNDI Receipt: project_receipt_pa_turnpike_its_project_p_682201_FINAL_1.pdf

1. PROJECT INFORMATION

Project Name: **PA Turnpike I.T.S Project - Peter J. Camiel Service Plaza**

Date of Review: **4/29/2019 07:33:35 AM**

Project Category: **Communication, Other**

Project Area: **9.42 acres**

County(s): **Chester**

Township/Municipality(s): **EAST NANTMEAL; WALLACE**

ZIP Code: **19343; 19520**

Quadrangle Name(s): **WAGONTOWN**

Watersheds HUC 8: **Brandywine-Christina**

Watersheds HUC 12: **Marsh Creek**

Decimal Degrees: **40.122073, -75.776716**

Degrees Minutes Seconds: **40° 7' 19.4628" N, 75° 46' 36.1762" W**

2. SEARCH RESULTS

Agency	Results	Response
PA Game Commission	Potential Impact	FURTHER REVIEW IS REQUIRED, See Agency Response
PA Department of Conservation and Natural Resources	No Known Impact	No Further Review Required
PA Fish and Boat Commission	No Known Impact	No Further Review Required
U.S. Fish and Wildlife Service	Potential Impact	MORE INFORMATION REQUIRED, See Agency Response

As summarized above, Pennsylvania Natural Diversity Inventory (PNDI) records indicate there may be potential impacts to threatened and endangered and/or special concern species and resources within the project area. If the response above indicates "No Further Review Required" no additional communication with the respective agency is required. If the response is "Further Review Required" or "See Agency Response," refer to the appropriate agency comments below. Please see the DEP Information Section of this receipt if a PA Department of Environmental Protection Permit is required.

Note that regardless of PNDI search results, projects requiring a Chapter 105 DEP individual permit or GP 5, 6, 7, 8, 9 or 11 must comply with the bog turtle habitat screening requirements of the PASPGP.

Appendix T - RFP# 19-10480-8386

PA Turnpike I.T.S Project - Peter J. Camiel Service Plaza



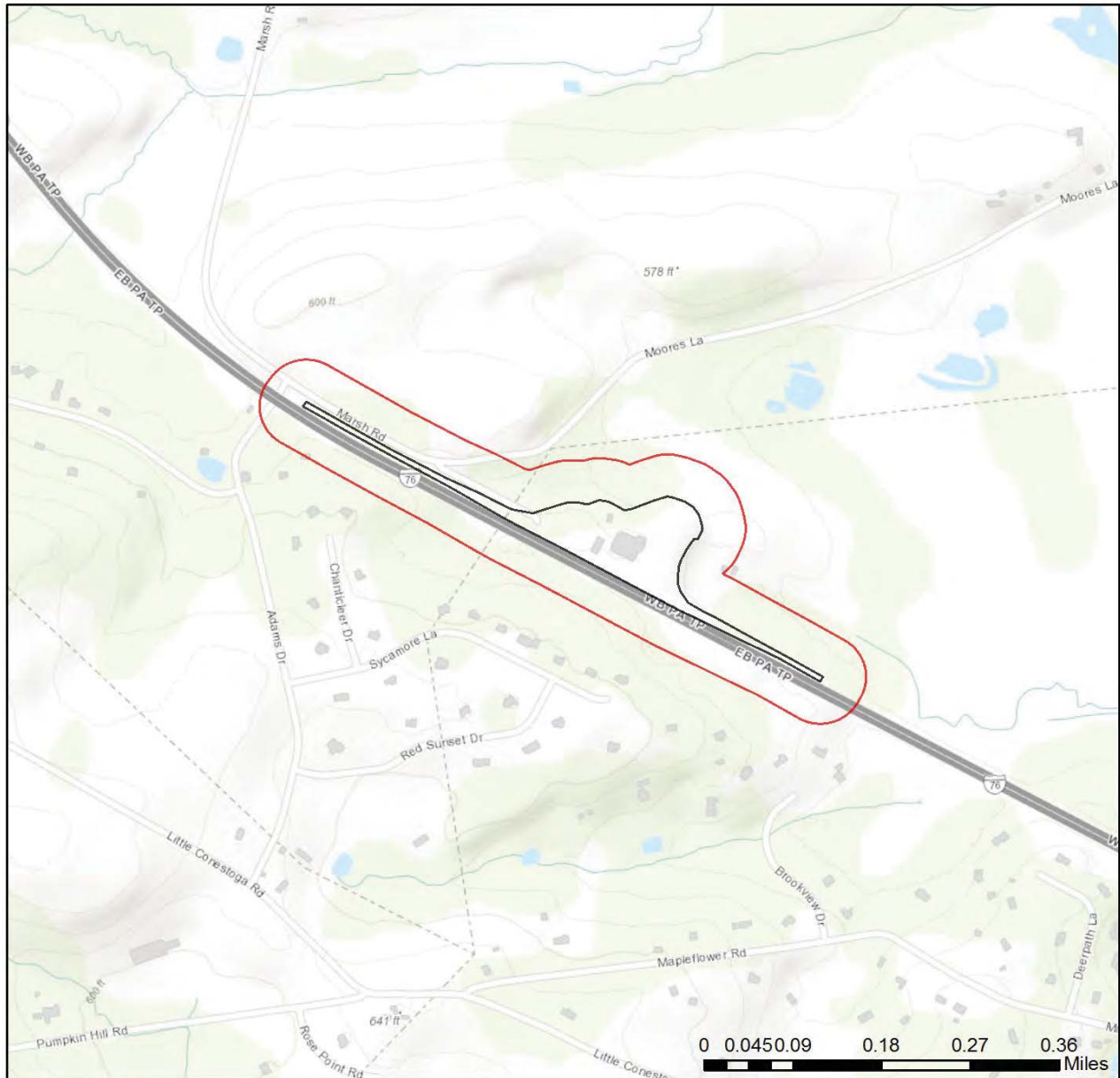
- Project Boundary
- Buffered Project Boundary

Service Layer Credits: Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community
Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community



Appendix T - RFP# 19-10480-8386

PA Turnpike I.T.S Project - Peter J. Camiel Service Plaza



- Project Boundary
- Buffered Project Boundary

Service Layer Credits: Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community
 Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS,



RESPONSE TO QUESTION(S) ASKED

Q1: Will the entire project occur within an existing building, parking lot, driveway, road, street, or maintained (periodically mowed) lawn?

Your answer is: Yes

Q2: Will this project or any project-related activities require any in-stream work, or a permanent or temporary crossing of a waterway (stream, river, creek, tributary)?

Your answer is: No

Q3: Accurately describe what is known about wetland presence in the project area or on the land parcel by selecting ONE of the following. "Project" includes all features of the project (including buildings, roads, utility lines, outfall and intake structures, wells, stormwater retention/detention basins, parking lots, driveways, lawns, etc.), as well as all associated impacts (e.g., temporary staging areas, work areas, temporary road crossings, areas subject to grading or clearing, etc.). Include all areas that will be permanently or temporarily affected -- either directly or indirectly -- by any type of disturbance (e.g., land clearing, grading, tree removal, flooding, etc.). Land parcel = the lot(s) on which some type of project(s) or activity(s) are proposed to occur.

Your answer is: Someone qualified to identify and delineate wetlands has investigated the site, and determined that wetlands ARE located in or within 300 feet of the project area. (A written report from the wetland specialist, and detailed project maps should document this.)

3. AGENCY COMMENTS

Regardless of whether a DEP permit is necessary for this proposed project, any potential impacts to threatened and endangered species and/or special concern species and resources must be resolved with the appropriate jurisdictional agency. In some cases, a permit or authorization from the jurisdictional agency may be needed if adverse impacts to these species and habitats cannot be avoided.

These agency determinations and responses are **valid for two years** (from the date of the review), and are based on the project information that was provided, including the exact project location; the project type, description, and features; and any responses to questions that were generated during this search. If any of the following change: 1) project location, 2) project size or configuration, 3) project type, or 4) responses to the questions that were asked during the online review, the results of this review are not valid, and the review must be searched again via the PNDI Environmental Review Tool and resubmitted to the jurisdictional agencies. The PNDI tool is a primary screening tool, and a desktop review may reveal more or fewer impacts than what is listed on this PNDI receipt. The jurisdictional agencies **strongly advise against** conducting surveys for the species listed on the receipt prior to consultation with the agencies.

PA Game Commission

RESPONSE:

Further review of this project is necessary to resolve the potential impact(s). Please send project information to this agency for review (see WHAT TO SEND).

PGC Species: (Note: The Pennsylvania Conservation Explorer tool is a primary screening tool, and a desktop review may reveal more or fewer species than what is listed below.)

Scientific Name	Common Name	Current Status
Cistothorus palustris	Marsh Wren	Special Concern Species*

PA Department of Conservation and Natural Resources

RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Fish and Boat Commission**RESPONSE:**

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

U.S. Fish and Wildlife Service**RESPONSE:**

Information Request: Conduct a Bog Turtle Habitat (Phase 1) Survey in accordance with USFWS Guidelines for Bog Turtle Surveys (April 2006). Evaluate all wetlands within 300 feet of the project area, which includes all areas that will be impacted by earth disturbance or project features (e.g., roads, structures, utility lines, lawns, detention basins, staging areas, etc.). IF THE PHASE 1 SURVEY IS DONE BY A QUALIFIED BOG TURTLE SURVEYOR (see <https://www.fws.gov/northeast/pafo/endangered/surveys.html>): 1) Send positive results to USFWS for concurrence, along with a project description documenting how impacts will be avoided. OR, conduct a Phase 2 survey and send Phase 1 and 2 results to USFWS for concurrence. 2) Send a courtesy copy of negative results to USFWS (label as "Negative Phase 1 Survey Results by Qualified Bog Turtle Surveyor: USFWS Courtesy Copy"). USFWS approval of negative results is not necessary when a qualified surveyor does the survey in full accordance with USFWS guidelines. IF THE PHASE 1 SURVEY IS NOT DONE BY A QUALIFIED SURVEYOR: Send ALL Phase 1 results to USFWS for concurrence, and if potential habitat is found, also send a project description documenting how impacts will be avoided. As a qualified bog turtle surveyor, I _____ (name) certify that I conducted a Phase 1 survey of all wetlands in and within 300 feet of the project area on _____ (date) and determined that bog turtle habitat is absent.

_____ (Signature)

* Special Concern Species or Resource - Plant or animal species classified as rare, tentatively undetermined or candidate as well as other taxa of conservation concern, significant natural communities, special concern populations (plants or animals) and unique geologic features.

** Sensitive Species - Species identified by the jurisdictional agency as collectible, having economic value, or being susceptible to decline as a result of visitation.

WHAT TO SEND TO JURISDICTIONAL AGENCIES

If project information was requested by one or more of the agencies above, upload* or email* the following information to the agency(s). Instructions for uploading project materials can be found [here](#). This option provides the applicant with the convenience of sending project materials to a single location accessible to all three state agencies. Alternatively, applicants may email or mail their project materials (see AGENCY CONTACT INFORMATION).

***Note:** U.S.Fish and Wildlife Service requires applicants to mail project materials to the USFWS PA field office (see AGENCY CONTACT INFORMATION). USFWS will not accept project materials submitted electronically (by upload or email).

Check-list of Minimum Materials to be submitted:

____ Project narrative with a description of the overall project, the work to be performed, current physical characteristics of the site and acreage to be impacted.

____ A map with the project boundary and/or a basic site plan (particularly showing the relationship of the project to the physical features such as wetlands, streams, ponds, rock outcrops, etc.)

In addition to the materials listed above, USFWS REQUIRES the following

____ **SIGNED** copy of a Final Project Environmental Review Receipt

The inclusion of the following information may expedite the review process.

____ Color photos keyed to the basic site plan (i.e. showing on the site plan where and in what direction each photo was taken and the date of the photos)

____ Information about the presence and location of wetlands in the project area, and how this was determined (e.g., by a qualified wetlands biologist), if wetlands are present in the project area, provide project plans showing the location of all project features, as well as wetlands and streams.

4. DEP INFORMATION

The Pa Department of Environmental Protection (DEP) requires that a signed copy of this receipt, along with any required documentation from jurisdictional agencies concerning resolution of potential impacts, be submitted with applications for permits requiring PNDI review. Two review options are available to permit applicants for handling PNDI coordination in conjunction with DEP's permit review process involving either T&E Species or species of special concern. Under sequential review, the permit applicant performs a PNDI screening and completes all coordination with the appropriate jurisdictional agencies prior to submitting the permit application. The applicant will include with its application, both a PNDI receipt and/or a clearance letter from the jurisdictional agency if the PNDI Receipt shows a Potential Impact to a species or the applicant chooses to obtain letters directly from the jurisdictional agencies. Under concurrent review, DEP, where feasible, will allow technical review of the permit to occur concurrently with the T&E species consultation with the jurisdictional agency. The applicant must still supply a copy of the PNDI Receipt with its permit application. The PNDI Receipt should also be submitted to the appropriate agency according to directions on the PNDI Receipt. The applicant and the jurisdictional agency will work together to resolve the potential impact(s). See the DEP PNDI policy at <https://conservationexplorer.dcnr.pa.gov/content/resources>.



Appendix T - RFP# 19-10480-8386

5. ADDITIONAL INFORMATION

The PNDI environmental review website is a preliminary screening tool. There are often delays in updating species status classifications. Because the proposed status represents the best available information regarding the conservation status of the species, state jurisdictional agency staff give the proposed statuses at least the same consideration as the current legal status. If surveys or further information reveal that a threatened and endangered and/or special concern species and resources exist in your project area, contact the appropriate jurisdictional agency/agencies immediately to identify and resolve any impacts.

For a list of species known to occur in the county where your project is located, please see the species lists by county found on the PA Natural Heritage Program (PNHP) home page (www.naturalheritage.state.pa.us). Also note that the PNDI Environmental Review Tool only contains information about species occurrences that have actually been reported to the PNHP.

6. AGENCY CONTACT INFORMATION

PA Department of Conservation and Natural Resources

Bureau of Forestry, Ecological Services Section
400 Market Street, PO Box 8552
Harrisburg, PA 17105-8552
Email: RA-HeritageReview@pa.gov

U.S. Fish and Wildlife Service

Pennsylvania Field Office
Endangered Species Section
110 Radnor Rd; Suite 101
State College, PA 16801
NO Faxes Please

PA Fish and Boat Commission

Division of Environmental Services
595 E. Rolling Ridge Dr., Bellefonte, PA 16823
Email: RA-FBPACENOTIFY@pa.gov

PA Game Commission

Bureau of Wildlife Habitat Management
Division of Environmental Planning and Habitat Protection
2001 Elmerton Avenue, Harrisburg, PA 17110-9797
Email: RA-PGC_PNDI@pa.gov
NO Faxes Please

7. PROJECT CONTACT INFORMATION

Name: Kristen N. Sommers
Company/Business Name: A.D. Marble
Address: 2200 Renaissance Blvd. Suite 260
City, State, Zip: King of Prussia, PA 19406
Phone: (484) 533-2546 Fax: (484) 533-2599
Email: k.sommers@admarble.com

8. CERTIFICATION

I certify that ALL of the project information contained in this receipt (including project location, project size/configuration, project type, answers to questions) is true, accurate and complete. In addition, if the project type, location, size or configuration changes, or if the answers to any questions that were asked during this online review change, I agree to re-do the online environmental review.

Kristen N. Sommers
applicant/project proponent signature

4/29/19
date



May 16, 2019

Ms. Sharon Yates
A.D. Marble
2200 Renaissance Blvd., Suite 260
King of Prussia, PA 19406

Project Search ID: PNDI-682201
PNDI Receipt: *project_receipt_pa_turnpike_its_project_p_682201_FINAL_1.pdf*
Re: PA Turnpike I.T.S. Project – Peter J. Camiel Service Plaza
East Nantmeal and Wallace Township, Chester County, PA

Dear Ms. Yates,

Thank you for submitting the Pennsylvania Natural Diversity Inventory (PNDI) Environmental Review Receipt *project_receipt_pa_turnpike_its_project_p_682201_FINAL_1.pdf* for review. The Pennsylvania Game Commission (PGC) screened this project for potential impacts to species and resources of concern under PGC responsibility, which includes birds and mammals only.

No Impact Anticipated

PNDI records indicate species or resources of concern are located in the vicinity of the project. However, based on the information you submitted concerning the nature of the project, the immediate location, and our detailed resource information, the PGC has determined that no impact is likely. Therefore, no further coordination with the PGC will be necessary for this project at this time.

This response represents the most up-to-date summary of the PNDI data files and is valid for two (2) years from the date of this letter. An absence of recorded information does not necessarily imply actual conditions on site. Should project plans change or additional information on listed or proposed species become available, this determination may be reconsidered.

Should the proposed work continue beyond the period covered by this letter, please resubmit the project to this agency as an “Update” (including an updated PNDI receipt, project narrative and accurate map). If the proposed work has not changed and no additional information concerning listed species is found, the project will be cleared for PNDI requirements under this agency for two additional years.

This finding applies to impacts to birds and mammals only. To complete your review of state and federally-listed threatened and endangered species and species of special concern, please be sure that the U.S. Fish and Wildlife Service, the PA Department of Conservation and Natural

Ms. Sharon Yates

-2-

May 16, 2019

Resources, and/or the PA Fish and Boat Commission have been contacted regarding this project as directed by the online PNDI ER Tool found at www.naturalheritage.state.pa.us.

Sincerely,



Tracey Librandi Mumma
Division of Environmental Planning & Habitat Protection
Bureau of Wildlife Habitat Management
Phone: 717-787-4250, Extension 3614
Fax: 717-787-6957
E-mail: tlibrandi@pa.gov

A PNHP Partner



TLM/tlm

Appendix T - RFP# 19-10480-8386

PNDI # 683572

USFWS Project # 2019-0935

U.S. FISH AND WILDLIFE SERVICE
110 Radnor Road, Suite 101, State College, PA 16801

This responds to your inquiry about a PNDI Internet Database search that resulted in a potential conflict with a federally listed, proposed or candidate species.

PROJECT LOCATION INFORMATION

County: Dauphin and Lebanon
Township: Conewago and South Londonderry

MISC INFORMATION

Date received by FWS: May 17, 2019
[] ACTIVE [] ARCHIVE

USFWS COMMENTS [X] EMAILED [] MAILED

Email: akoenig@admarble.com

To: Abigail G. Koenig

Affiliation: A D Marble

SPECIFIC PROJECT: PA Turnpike Lawn Service Plaza ITS Devices

FISH AND WILDLIFE SERVICE COMMENT(S):

X NOT LIKELY TO ADVERSELY AFFECT

The federally listed bog turtle occurs or may occur in or near the project area. However, based on our review of the information provided, including the project description and location (No direct or indirect disturbance to wetlands is proposed.

ITS devices will be within the paved areas in the acceleration and deceleration lanes. CCTVs will be mounted on existing poles or on new poles within the plaza.

no adverse effects to this species are likely to occur. If there is any change in the location, scale, scope, layout or design of the project, further consultation or coordination with the Service will be necessary.

The above determination is valid for two years from the date of this letter. In addition, this response relates only to federally listed, proposed, and candidate species under our jurisdiction, based on an office review of the proposed project's location and anticipated impacts. No field inspection of the project area has been conducted by this office. Consequently, comments on this form are not to be construed as addressing other Service concerns under the Fish and Wildlife Coordination Act or other authorities. Please reference the above PNDI # and USFWS Project # in any future correspondence regarding this project.

This review was conducted by the biologist listed below. He/she can be contacted at 814-234-4090.

[] Bonnie Dershem (x7453)
[] Melinda Turner (x7449)

[] Brian Scofield (x7471)
[] Nicole Ranalli (x7455)

[X] Jennifer Kagel (x7451)
[] Pamela Shellenberger (x7459)

SIGNATURE: _____

Supervisor, Pennsylvania Field Office

Appendix T - RFP# 19-10480-8386

Pennsylvania Department of Conservation and Natural Resources
PNDI Receipt: project_receipt_pa_turnpike_commission_it_682680_FINAL_1.pdf

Project Search ID: PNDI-682680

1. PROJECT INFORMATION

Project Name: **PA Turnpike Commission I.T.S. Project - Valley Forge Service Plaza**

Date of Review: **4/24/2019 08:14:31 AM**

Project Category: **Communication, Other**

Project Area: **7.87 acres**

County(s): **Chester**

Township/Municipality(s): **TREDYFFRIN**

ZIP Code: **19087**

Quadrangle Name(s): **VALLEY FORGE**

Watersheds HUC 8: **Schuylkill**

Watersheds HUC 12: **Little Valley Creek-Valley Creek; Mingo Creek-Schuylkill River**

Decimal Degrees: **40.083366, -75.439558**

Degrees Minutes Seconds: **40° 5' 0.1175" N, 75° 26' 22.4086" W**

2. SEARCH RESULTS

Agency	Results	Response
PA Game Commission	No Known Impact	No Further Review Required
PA Department of Conservation and Natural Resources	No Known Impact	No Further Review Required
PA Fish and Boat Commission	No Known Impact	No Further Review Required
U.S. Fish and Wildlife Service	Avoidance Measure	See Agency Response

As summarized above, Pennsylvania Natural Diversity Inventory (PNDI) records indicate there may be potential impacts to threatened and endangered and/or special concern species and resources within the project area. If the response above indicates "No Further Review Required" no additional communication with the respective agency is required. If the response is "Further Review Required" or "See Agency Response," refer to the appropriate agency comments below. Please see the DEP Information Section of this receipt if a PA Department of Environmental Protection Permit is required.

Note that regardless of PNDI search results, projects requiring a Chapter 105 DEP individual permit or GP 5, 6, 7, 8, 9 or 11 must comply with the bog turtle habitat screening requirements of the PASPGP.

Appendix T - RFP# 19-10480-8386

PA Turnpike Commission I.T.S. Project - Valley Forge Service Plaza



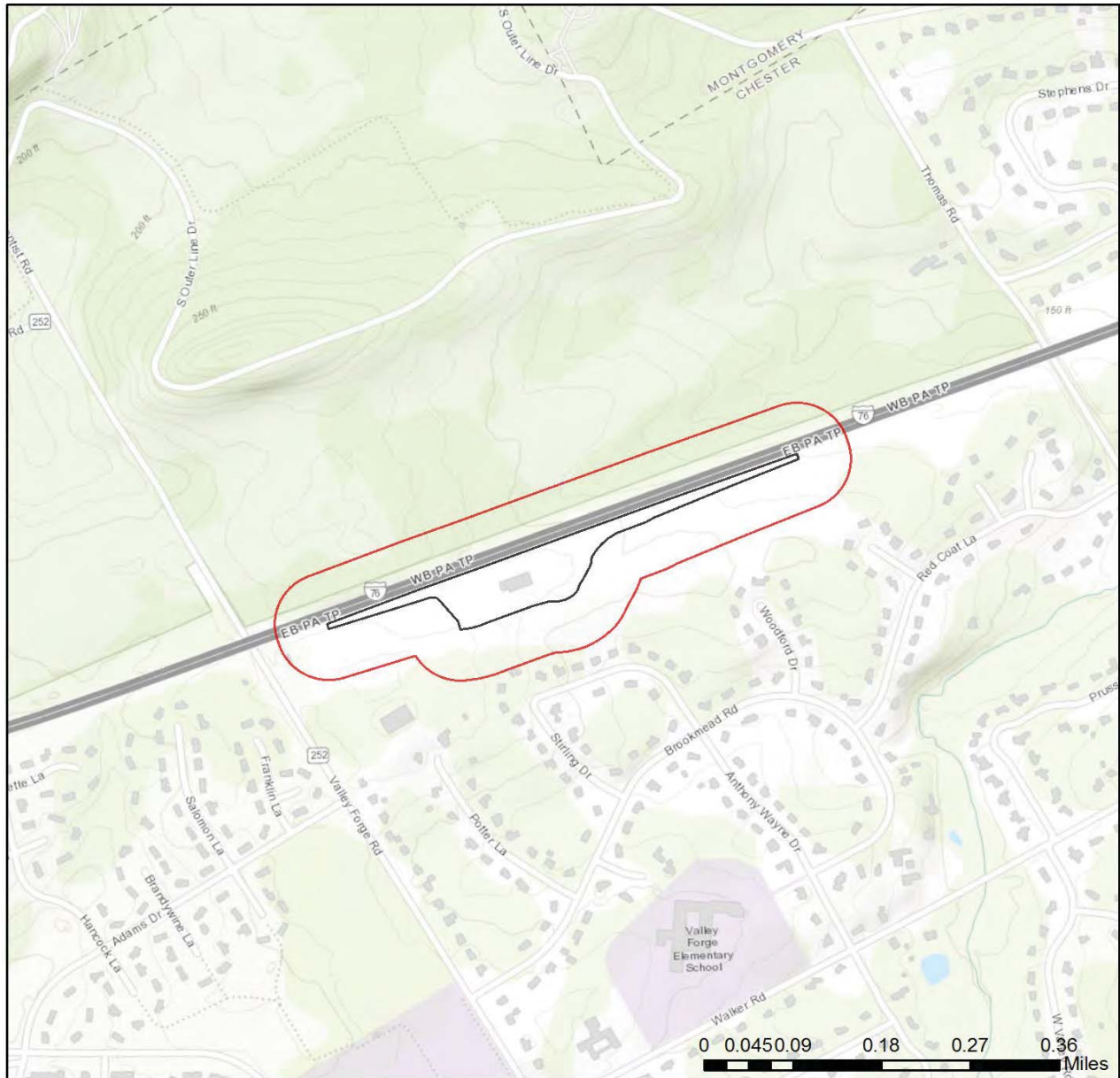
- Project Boundary
- Buffered Project Boundary

Service Layer Credits: Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community
Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community



Appendix T - RFP# 19-10480-8386

PA Turnpike Commission I.T.S. Project - Valley Forge Service Plaza



- Project Boundary
- Buffered Project Boundary

Service Layer Credits: Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community
 Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS,



RESPONSE TO QUESTION(S) ASKED

Q1: Will this project or any project-related activities require any in-stream work, or a permanent or temporary crossing of a waterway (stream, river, creek, tributary)?

Your answer is: No

Q2: Accurately describe what is known about wetland presence in the project area or on the land parcel by selecting ONE of the following. "Project" includes all features of the project (including buildings, roads, utility lines, outfall and intake structures, wells, stormwater retention/detention basins, parking lots, driveways, lawns, etc.), as well as all associated impacts (e.g., temporary staging areas, work areas, temporary road crossings, areas subject to grading or clearing, etc.). Include all areas that will be permanently or temporarily affected -- either directly or indirectly -- by any type of disturbance (e.g., land clearing, grading, tree removal, flooding, etc.). Land parcel = the lot(s) on which some type of project(s) or activity(s) are proposed to occur.

Your answer is: Someone qualified to identify and delineate wetlands has investigated the site, and determined that NO wetlands are located in or within 300 feet of the project area. (A written report from the wetland specialist, and detailed project maps should document this.)

3. AGENCY COMMENTS

Regardless of whether a DEP permit is necessary for this proposed project, any potential impacts to threatened and endangered species and/or special concern species and resources must be resolved with the appropriate jurisdictional agency. In some cases, a permit or authorization from the jurisdictional agency may be needed if adverse impacts to these species and habitats cannot be avoided.

These agency determinations and responses are **valid for two years** (from the date of the review), and are based on the project information that was provided, including the exact project location; the project type, description, and features; and any responses to questions that were generated during this search. If any of the following change: 1) project location, 2) project size or configuration, 3) project type, or 4) responses to the questions that were asked during the online review, the results of this review are not valid, and the review must be searched again via the PNDI Environmental Review Tool and resubmitted to the jurisdictional agencies. The PNDI tool is a primary screening tool, and a desktop review may reveal more or fewer impacts than what is listed on this PNDI receipt. The jurisdictional agencies **strongly advise against** conducting surveys for the species listed on the receipt prior to consultation with the agencies.

PA Game Commission**RESPONSE:**

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Department of Conservation and Natural Resources**RESPONSE:**

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

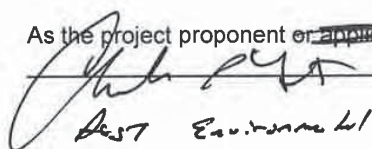
PA Fish and Boat Commission**RESPONSE:**

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

U.S. Fish and Wildlife Service**RESPONSE:**

Avoidance Measure: Do not conduct this project/activity within 50 feet of any streams, rivers, creeks, or tributaries. This includes both perennial and intermittent waterways.

As the project proponent or applicant, I certify that I will implement the above Avoidance Measure:

 (Signature)
Asst Environmental Manager

SPECIAL NOTE: If you agree to implement the above Avoidance Measure, no further coordination with this agency regarding threatened and endangered species and/or special concern species and resources is required. If you are not able to comply with the Avoidance Measures, you are required to coordinate with this agency - please send project information to this agency for review (see "What to Send" section).

WHAT TO SEND TO JURISDICTIONAL AGENCIES

If project information was requested by one or more of the agencies above, upload* or email* the following information to the agency(s). Instructions for uploading project materials can be found [here](#). This option provides the applicant with the convenience of sending project materials to a single location accessible to all three state agencies. Alternatively, applicants may email or mail their project materials (see AGENCY CONTACT INFORMATION).

***Note:** U.S.Fish and Wildlife Service requires applicants to mail project materials to the USFWS PA field office (see AGENCY CONTACT INFORMATION). USFWS will not accept project materials submitted electronically (by upload or email).

Check-list of Minimum Materials to be submitted:

___ Project narrative with a description of the overall project, the work to be performed, current physical characteristics of the site and acreage to be impacted.

___ A map with the project boundary and/or a basic site plan (particularly showing the relationship of the project to the physical features such as wetlands, streams, ponds, rock outcrops, etc.)

In addition to the materials listed above, USFWS REQUIRES the following

___ **SIGNED** copy of a Final Project Environmental Review Receipt

The inclusion of the following information may expedite the review process.

___ Color photos keyed to the basic site plan (i.e. showing on the site plan where and in what direction each photo was taken and the date of the photos)

___ Information about the presence and location of wetlands in the project area, and how this was determined (e.g., by a qualified wetlands biologist), if wetlands are present in the project area, provide project plans showing the location of all project features, as well as wetlands and streams.

4. DEP INFORMATION

The Pa Department of Environmental Protection (DEP) requires that a signed copy of this receipt, along with any required documentation from jurisdictional agencies concerning resolution of potential impacts, be submitted with applications for permits requiring PNDI review. Two review options are available to permit applicants for handling PNDI coordination in conjunction with DEP's permit review process involving either T&E Species or species of special concern. Under sequential review, the permit applicant performs a PNDI screening and completes all coordination with the appropriate jurisdictional agencies prior to submitting the permit application. The applicant will include with its application, both a PNDI receipt and/or a clearance letter from the jurisdictional agency if the PNDI Receipt shows a Potential Impact to a species or the applicant chooses to obtain letters directly from the jurisdictional agencies. Under concurrent review, DEP, where feasible, will allow technical review of the permit to occur concurrently with the T&E species consultation with the jurisdictional agency. The applicant must still supply a copy of the PNDI Receipt with its permit application. The PNDI Receipt should also be submitted to the appropriate agency according to directions on the PNDI Receipt. The applicant and the jurisdictional agency will work together to resolve the potential impact(s). See the DEP PNDI policy at <https://conservationexplorer.dcnr.pa.gov/content/resources>.

Appendix T - RFP# 19-10480-8386

Pennsylvania Department of Conservation and Natural Resources
PNDI Receipt: project_receipt_pa_turnpike_commission_it_682680_FINAL_1.pdf

Project Search ID: PNDI-682680

5. ADDITIONAL INFORMATION

The PNDI environmental review website is a preliminary screening tool. There are often delays in updating species status classifications. Because the proposed status represents the best available information regarding the conservation status of the species, state jurisdictional agency staff give the proposed statuses at least the same consideration as the current legal status. If surveys or further information reveal that a threatened and endangered and/or special concern species and resources exist in your project area, contact the appropriate jurisdictional agency/agencies immediately to identify and resolve any impacts.

For a list of species known to occur in the county where your project is located, please see the species lists by county found on the PA Natural Heritage Program (PNHP) home page (www.naturalheritage.state.pa.us). Also note that the PNDI Environmental Review Tool only contains information about species occurrences that have actually been reported to the PNHP.

6. AGENCY CONTACT INFORMATION

PA Department of Conservation and Natural Resources

Bureau of Forestry, Ecological Services Section
400 Market Street, PO Box 8552
Harrisburg, PA 17105-8552
Email: RA-HeritageReview@pa.gov

U.S. Fish and Wildlife Service

Pennsylvania Field Office
Endangered Species Section
110 Radnor Rd; Suite 101
State College, PA 16801
NO Faxes Please

PA Fish and Boat Commission

Division of Environmental Services
595 E. Rolling Ridge Dr., Bellefonte, PA 16823
Email: RA-FBPACENOTIFY@pa.gov

PA Game Commission

Bureau of Wildlife Habitat Management
Division of Environmental Planning and Habitat Protection
2001 Elmerton Avenue, Harrisburg, PA 17110-9797
Email: RA-PGC_PNDI@pa.gov
NO Faxes Please

7. PROJECT CONTACT INFORMATION

Name: Kristen N. Sommers
Company/Business Name: A.D. Marble
Address: 2200 Renaissance Boulevard, Suite 260
City, State, Zip: King of Prussia, PA 19406
Phone: (484) 533-2546 Fax: (484) 533-2599
Email: ksommers@admarble.com

8. CERTIFICATION

I certify that ALL of the project information contained in this receipt (including project location, project size/configuration, project type, answers to questions) is true, accurate and complete. In addition, if the project type, location, size or configuration changes, or if the answers to any questions that were asked during this online review change, I agree to re-do the online environmental review.

Kristen N. Sommers
applicant/project proponent signature

4/25/19
date

Appendix T - RFP# 19-10480-8386

Pennsylvania Department of Conservation and Natural Resources

Project Search ID: PNDI-682174

PNDI Receipt: project_receipt_pa_turnpike_its_project_k_682174_FINAL_1.pdf

1. PROJECT INFORMATION

Project Name: **PA Turnpike I.T.S. Project - King of Prussia Service Plaza**

Date of Review: **4/16/2019 01:03:28 PM**

Project Category: **Communication, Other**

Project Area: **14.24 acres**

County(s): **Montgomery**

Township/Municipality(s): **UPPER MERION**

ZIP Code: **19406**

Quadrangle Name(s): **NORRISTOWN; VALLEY FORGE**

Watersheds HUC 8: **Schuylkill**

Watersheds HUC 12: **Mingo Creek-Schuylkill River**

Decimal Degrees: **40.089849, -75.371746**

Degrees Minutes Seconds: **40° 5' 23.4577" N, 75° 22' 18.2853" W**

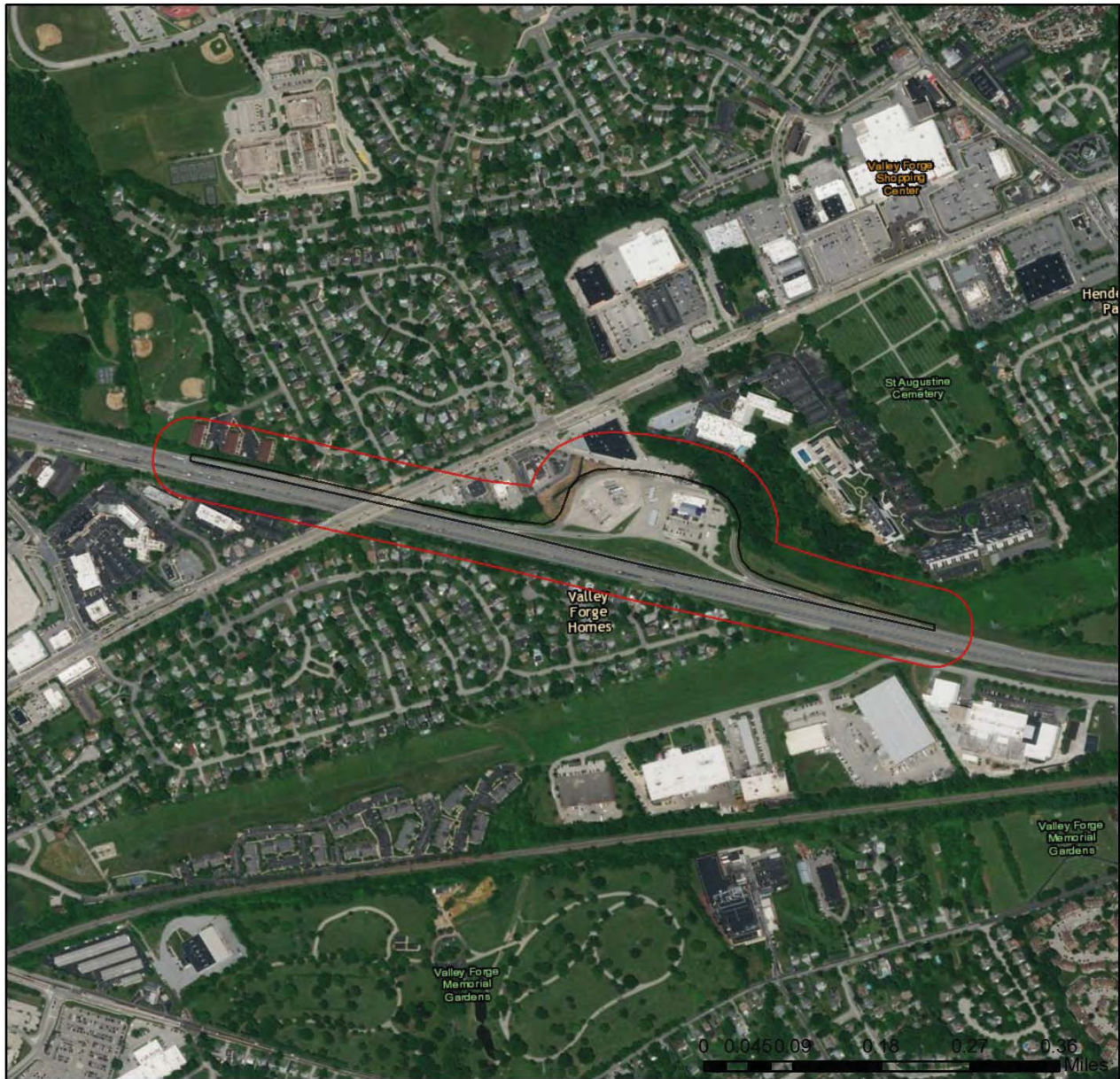
2. SEARCH RESULTS

Agency	Results	Response
PA Game Commission	No Known Impact	No Further Review Required
PA Department of Conservation and Natural Resources	No Known Impact	No Further Review Required
PA Fish and Boat Commission	No Known Impact	No Further Review Required
U.S. Fish and Wildlife Service	No Known Impact	No Further Review Required

As summarized above, Pennsylvania Natural Diversity Inventory (PNDI) records indicate no known impacts to threatened and endangered species and/or special concern species and resources within the project area. Therefore, based on the information you provided, no further coordination is required with the jurisdictional agencies. This response does not reflect potential agency concerns regarding impacts to other ecological resources, such as wetlands.

Appendix T - RFP# 19-10480-8386

PA Turnpike I.T.S. Project - King of Prussia Service Plaza



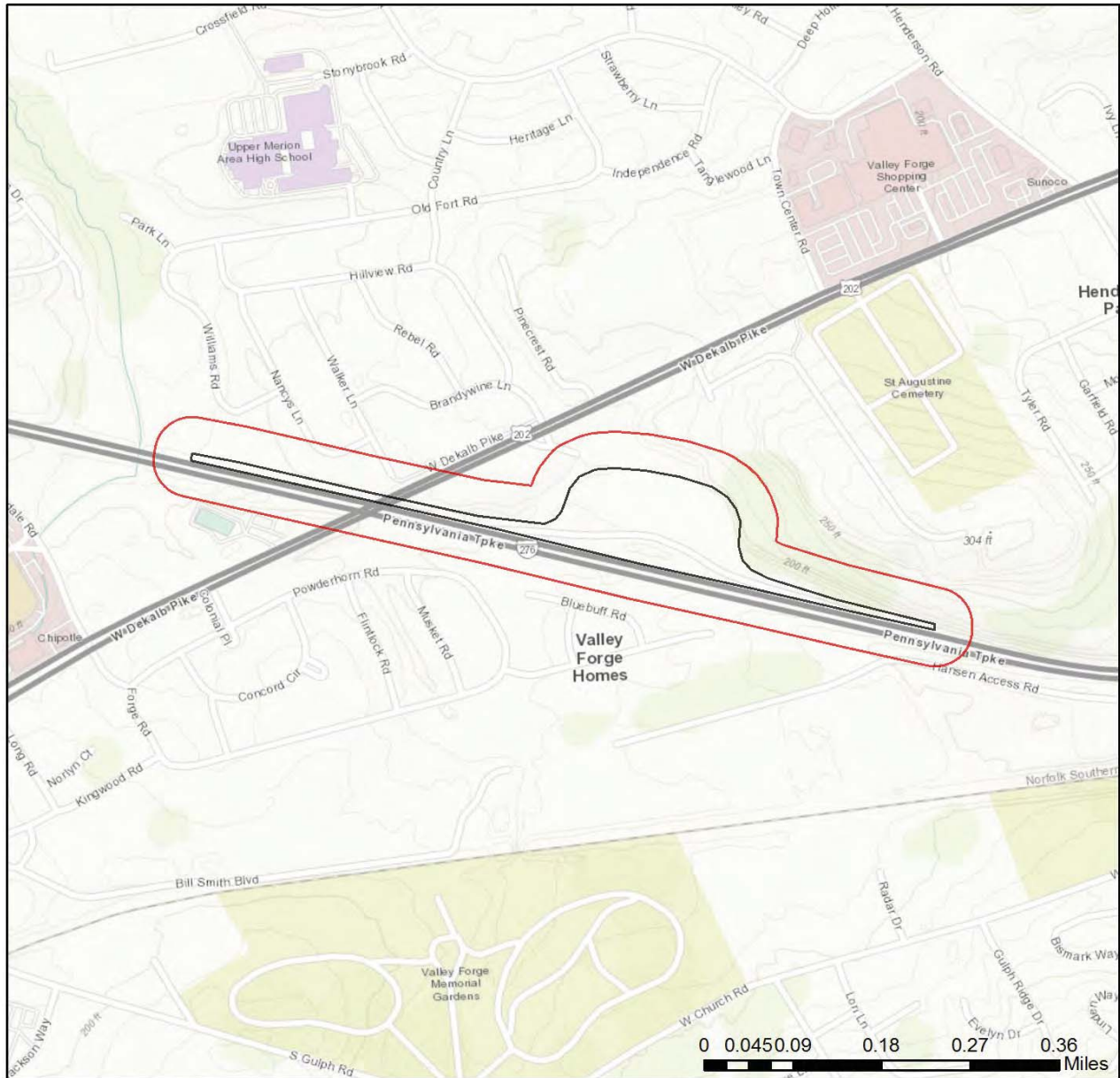
- Project Boundary
- Buffered Project Boundary

Service Layer Credits: Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community
 Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community



Appendix T - RFP# 19-10480-8386

PA Turnpike I.T.S. Project - King of Prussia Service Plaza



- Project Boundary
- Buffered Project Boundary

Service Layer Credits: Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community
 Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS,



3. AGENCY COMMENTS

Regardless of whether a DEP permit is necessary for this proposed project, any potential impacts to threatened and endangered species and/or special concern species and resources must be resolved with the appropriate jurisdictional agency. In some cases, a permit or authorization from the jurisdictional agency may be needed if adverse impacts to these species and habitats cannot be avoided.

These agency determinations and responses are **valid for two years** (from the date of the review), and are based on the project information that was provided, including the exact project location; the project type, description, and features; and any responses to questions that were generated during this search. If any of the following change: 1) project location, 2) project size or configuration, 3) project type, or 4) responses to the questions that were asked during the online review, the results of this review are not valid, and the review must be searched again via the PNDI Environmental Review Tool and resubmitted to the jurisdictional agencies. The PNDI tool is a primary screening tool, and a desktop review may reveal more or fewer impacts than what is listed on this PNDI receipt. The jurisdictional agencies **strongly advise against** conducting surveys for the species listed on the receipt prior to consultation with the agencies.

PA Game Commission

RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Department of Conservation and Natural Resources

RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Fish and Boat Commission

RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

U.S. Fish and Wildlife Service

RESPONSE:

No impacts to **federally** listed or proposed species are anticipated. Therefore, no further consultation/coordination under the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq. is required. Because no take of federally listed species is anticipated, none is authorized. This response does not reflect potential Fish and Wildlife Service concerns under the Fish and Wildlife Coordination Act or other authorities.

4. DEP INFORMATION

The Pa Department of Environmental Protection (DEP) requires that a signed copy of this receipt, along with any required documentation from jurisdictional agencies concerning resolution of potential impacts, be submitted with applications for permits requiring PNDI review. Two review options are available to permit applicants for handling PNDI coordination in conjunction with DEP's permit review process involving either T&E Species or species of special concern. Under sequential review, the permit applicant performs a PNDI screening and completes all coordination with the appropriate jurisdictional agencies prior to submitting the permit application. The applicant will include with its application, both a PNDI receipt and/or a clearance letter from the jurisdictional agency if the PNDI Receipt shows a Potential Impact to a species or the applicant chooses to obtain letters directly from the jurisdictional agencies. Under concurrent review, DEP, where feasible, will allow technical review of the permit to occur concurrently with the T&E species consultation with the jurisdictional agency. The applicant must still supply a copy of the PNDI Receipt with its permit application. The PNDI Receipt should also be submitted to the appropriate agency according to directions on the PNDI Receipt. The applicant and the jurisdictional agency will work together to resolve the potential impact(s). See the DEP PNDI policy at <https://conservationexplorer.dcnr.pa.gov/content/resources>.

5. ADDITIONAL INFORMATION

The PNDI environmental review website is a preliminary screening tool. There are often delays in updating species status classifications. Because the proposed status represents the best available information regarding the conservation status of the species, state jurisdictional agency staff give the proposed statuses at least the same consideration as the current legal status. If surveys or further information reveal that a threatened and endangered and/or special concern species and resources exist in your project area, contact the appropriate jurisdictional agency/agencies immediately to identify and resolve any impacts.

For a list of species known to occur in the county where your project is located, please see the species lists by county found on the PA Natural Heritage Program (PNHP) home page (www.naturalheritage.state.pa.us). Also note that the PNDI Environmental Review Tool only contains information about species occurrences that have actually been reported to the PNHP.

6. AGENCY CONTACT INFORMATION**PA Department of Conservation and Natural Resources**

Bureau of Forestry, Ecological Services Section
400 Market Street, PO Box 8552
Harrisburg, PA 17105-8552
Email: RA-HeritageReview@pa.gov

U.S. Fish and Wildlife Service

Pennsylvania Field Office
Endangered Species Section
110 Radnor Rd; Suite 101
State College, PA 16801
NO Faxes Please

PA Fish and Boat Commission

Division of Environmental Services
595 E. Rolling Ridge Dr., Bellefonte, PA 16823
Email: RA-FBPACENOTIFY@pa.gov

PA Game Commission

Bureau of Wildlife Habitat Management
Division of Environmental Planning and Habitat Protection
2001 Elmerton Avenue, Harrisburg, PA 17110-9797
Email: RA-PGC_PNDI@pa.gov
NO Faxes Please

7. PROJECT CONTACT INFORMATION

Name: Kristen N. Sommers
Company/Business Name: A.D. Marble
Address: 2700 Renaissance Boulevard, Suite 260
City, State, Zip: King of Prussia, PA 19406
Phone: (484) 533-2546 Fax: (484) 533-2599
Email: K.Sommers@admarble.com

8. CERTIFICATION

I certify that ALL of the project information contained in this receipt (including project location, project size/configuration, project type, answers to questions) is true, accurate and complete. In addition, if the project type, location, size or configuration changes, or if the answers to any questions that were asked during this online review change, I agree to re-do the online environmental review.

Kristen N. Sommers
applicant/project proponent signature

4/25/19
date

Appendix T - RFP# 19-10480-8386

1. PROJECT INFORMATION

Project Name: **PA Turnpike I.T.S. Project - Allentown Service Plaza**

Date of Review: **4/16/2019 01:16:24 PM**

Project Category: **Communication, Other**

Project Area: **53.97 acres**

County(s): **Lehigh**

Township/Municipality(s): **LOWER MACUNGIE; UPPER MACUNGIE**

ZIP Code: **18104; 18106**

Quadrangle Name(s): **ALLENTOWN WEST**

Watersheds HUC 8: **Lehigh**

Watersheds HUC 12: **Little Lehigh Creek-Lehigh River**

Decimal Degrees: **40.574911, -75.557591**

Degrees Minutes Seconds: **40° 34' 29.6801" N, 75° 33' 27.3278" W**

2. SEARCH RESULTS

Agency	Results	Response
PA Game Commission	No Known Impact	No Further Review Required
PA Department of Conservation and Natural Resources	No Known Impact	No Further Review Required
PA Fish and Boat Commission	No Known Impact	No Further Review Required
U.S. Fish and Wildlife Service	No Known Impact	No Further Review Required

As summarized above, Pennsylvania Natural Diversity Inventory (PNDI) records indicate no known impacts to threatened and endangered species and/or special concern species and resources within the project area. Therefore, based on the information you provided, no further coordination is required with the jurisdictional agencies. This response does not reflect potential agency concerns regarding impacts to other ecological resources, such as wetlands.

Note that regardless of PNDI search results, projects requiring a Chapter 105 DEP individual permit or GP 5, 6, 7, 8, 9 or 11 must comply with the bog turtle habitat screening requirements of the PASPGP.

Appendix T - RFP# 19-10480-8386

PA Turnpike I.T.S. Project - Allentown Service Plaza



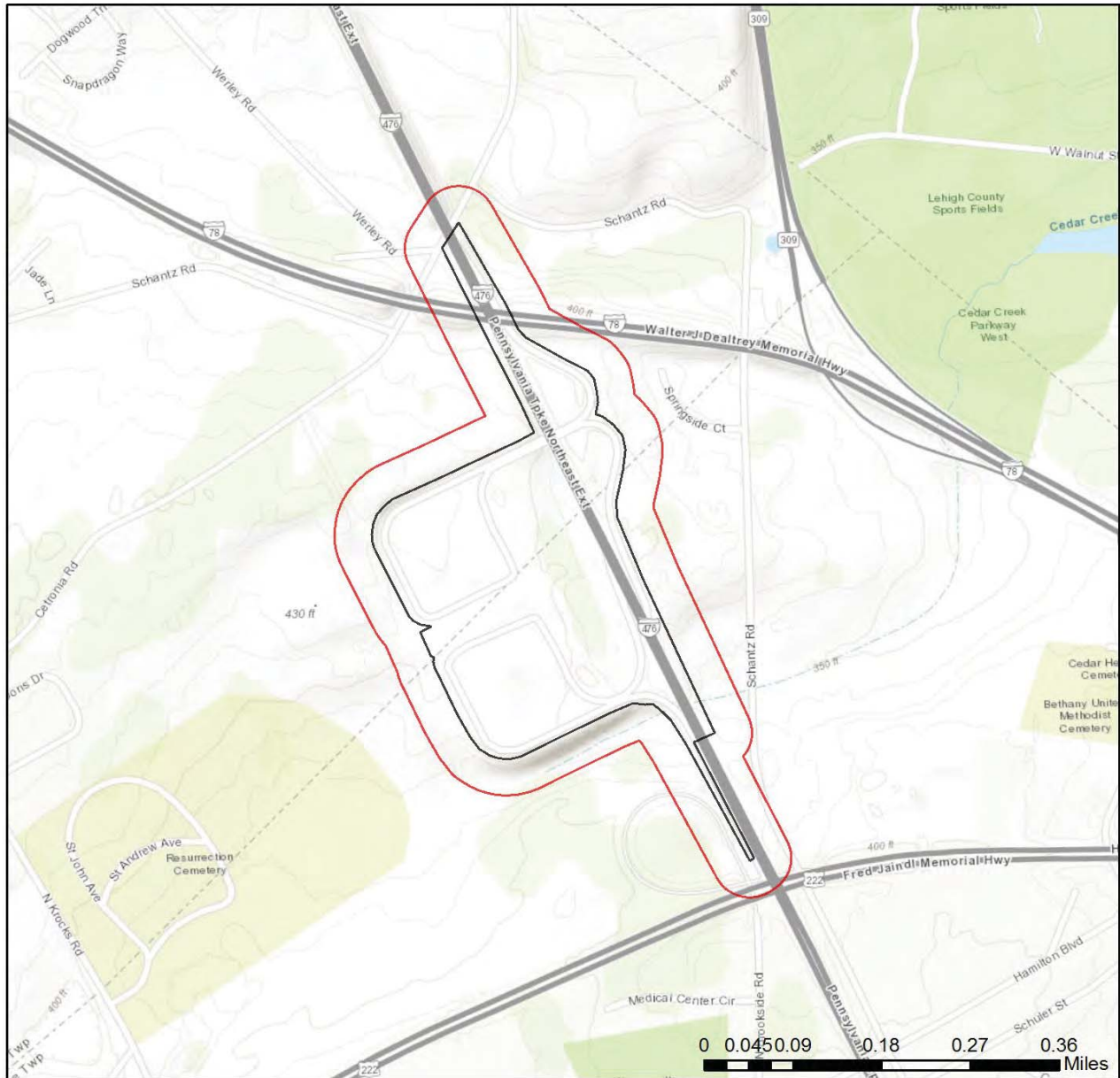
- Project Boundary
- Buffered Project Boundary

Service Layer Credits: Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community
 Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community



Appendix T - RFP# 19-10480-8386

PA Turnpike I.T.S. Project - Allentown Service Plaza



- Project Boundary
- Buffered Project Boundary

Service Layer Credits: Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community
 Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS,



3. AGENCY COMMENTS

Regardless of whether a DEP permit is necessary for this proposed project, any potential impacts to threatened and endangered species and/or special concern species and resources must be resolved with the appropriate jurisdictional agency. In some cases, a permit or authorization from the jurisdictional agency may be needed if adverse impacts to these species and habitats cannot be avoided.

These agency determinations and responses are **valid for two years** (from the date of the review), and are based on the project information that was provided, including the exact project location; the project type, description, and features; and any responses to questions that were generated during this search. If any of the following change: 1) project location, 2) project size or configuration, 3) project type, or 4) responses to the questions that were asked during the online review, the results of this review are not valid, and the review must be searched again via the PNDI Environmental Review Tool and resubmitted to the jurisdictional agencies. The PNDI tool is a primary screening tool, and a desktop review may reveal more or fewer impacts than what is listed on this PNDI receipt. The jurisdictional agencies **strongly advise against** conducting surveys for the species listed on the receipt prior to consultation with the agencies.

PA Game Commission

RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Department of Conservation and Natural Resources

RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Fish and Boat Commission

RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

U.S. Fish and Wildlife Service

RESPONSE:

No impacts to **federally** listed or proposed species are anticipated. Therefore, no further consultation/coordination under the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq. is required. Because no take of federally listed species is anticipated, none is authorized. This response does not reflect potential Fish and Wildlife Service concerns under the Fish and Wildlife Coordination Act or other authorities.

4. DEP INFORMATION

The Pa Department of Environmental Protection (DEP) requires that a signed copy of this receipt, along with any required documentation from jurisdictional agencies concerning resolution of potential impacts, be submitted with applications for permits requiring PNDI review. Two review options are available to permit applicants for handling PNDI coordination in conjunction with DEP's permit review process involving either T&E Species or species of special concern. Under sequential review, the permit applicant performs a PNDI screening and completes all coordination with the appropriate jurisdictional agencies prior to submitting the permit application. The applicant will include with its application, both a PNDI receipt and/or a clearance letter from the jurisdictional agency if the PNDI Receipt shows a Potential Impact to a species or the applicant chooses to obtain letters directly from the jurisdictional agencies. Under concurrent review, DEP, where feasible, will allow technical review of the permit to occur concurrently with the T&E species consultation with the jurisdictional agency. The applicant must still supply a copy of the PNDI Receipt with its permit application. The PNDI Receipt should also be submitted to the appropriate agency according to directions on the PNDI Receipt. The applicant and the jurisdictional agency will work together to resolve the potential impact(s). See the DEP PNDI policy at <https://conservationexplorer.dcnr.pa.gov/content/resources>.

Appendix T - RFP# 19-10480-8386

Pennsylvania Department of Conservation and Natural Resources
PNDI Receipt: project_receipt_pa_turnpike_its_project_a_682175_FINAL_1.pdf

Project Search ID: PNDI-682175

5. ADDITIONAL INFORMATION

The PNDI environmental review website is a preliminary screening tool. There are often delays in updating species status classifications. Because the proposed status represents the best available information regarding the conservation status of the species, state jurisdictional agency staff give the proposed statuses at least the same consideration as the current legal status. If surveys or further information reveal that a threatened and endangered and/or special concern species and resources exist in your project area, contact the appropriate jurisdictional agency/agencies immediately to identify and resolve any impacts.

For a list of species known to occur in the county where your project is located, please see the species lists by county found on the PA Natural Heritage Program (PNHP) home page (www.naturalheritage.state.pa.us). Also note that the PNDI Environmental Review Tool only contains information about species occurrences that have actually been reported to the PNHP.

6. AGENCY CONTACT INFORMATION

PA Department of Conservation and Natural Resources

Bureau of Forestry, Ecological Services Section
400 Market Street, PO Box 8552
Harrisburg, PA 17105-8552
Email: RA-HeritageReview@pa.gov

U.S. Fish and Wildlife Service

Pennsylvania Field Office
Endangered Species Section
110 Radnor Rd; Suite 101
State College, PA 16801
NO Faxes Please

PA Fish and Boat Commission

Division of Environmental Services
595 E. Rolling Ridge Dr., Bellefonte, PA 16823
Email: RA-FBPACENOTIFY@pa.gov

PA Game Commission

Bureau of Wildlife Habitat Management
Division of Environmental Planning and Habitat Protection
2001 Elmerton Avenue, Harrisburg, PA 17110-9797
Email: RA-PGC_PNDI@pa.gov
NO Faxes Please

7. PROJECT CONTACT INFORMATION

Name: Kristen N. Sommers
Company/Business Name: A.D Marble
Address: 2200 Renaissance Boulevard suite 260
City, State, Zip: King of Prussia, PA 19406
Phone: (484) 533-2546 Fax: (484) 533-2598
Email: KSommers@admarble.com

8. CERTIFICATION

I certify that ALL of the project information contained in this receipt (including project location, project size/configuration, project type, answers to questions) is true, accurate and complete. In addition, if the project type, location, size or configuration changes, or if the answers to any questions that were asked during this online review change, I agree to re-do the online environmental review.

Kristen N. Sommers
applicant/project proponent signature

4/25/19
date

Appendix T - RFP# 19-10480-8386

Pennsylvania Department of Conservation and Natural Resources

Project Search ID: PNDI-681976

PNDI Receipt: project_receipt_pa_turnpike_its_project_h_681976_FINAL_1.pdf

1. PROJECT INFORMATION

Project Name: **PA Turnpike I.T.S. Project - Hickory Run Service Plaza**

Date of Review: **4/16/2019 12:41:33 PM**

Project Category: **Communication, Other**

Project Area: **53.78 acres**

County(s): **Carbon**

Township/Municipality(s): **PENN FOREST**

ZIP Code: **18210; 18229**

Quadrangle Name(s): **CHRISTMANS**

Watersheds HUC 8: **Lehigh**

Watersheds HUC 12: **Stony Creek-Lehigh River**

Decimal Degrees: **40.970531, -75.630356**

Degrees Minutes Seconds: **40° 58' 13.9118" N, 75° 37' 49.2828" W**

2. SEARCH RESULTS

Agency	Results	Response
PA Game Commission	No Known Impact	No Further Review Required
PA Department of Conservation and Natural Resources	Potential Impact	FURTHER REVIEW IS REQUIRED, See Agency Response
PA Fish and Boat Commission	No Known Impact	No Further Review Required
U.S. Fish and Wildlife Service	No Known Impact	No Further Review Required

As summarized above, Pennsylvania Natural Diversity Inventory (PNDI) records indicate there may be potential impacts to threatened and endangered and/or special concern species and resources within the project area. If the response above indicates "No Further Review Required" no additional communication with the respective agency is required. If the response is "Further Review Required" or "See Agency Response," refer to the appropriate agency comments below. Please see the DEP Information Section of this receipt if a PA Department of Environmental Protection Permit is required.

Appendix T - RFP# 19-10480-8386

PA Turnpike I.T.S. Project - Hickory Run Service Plaza



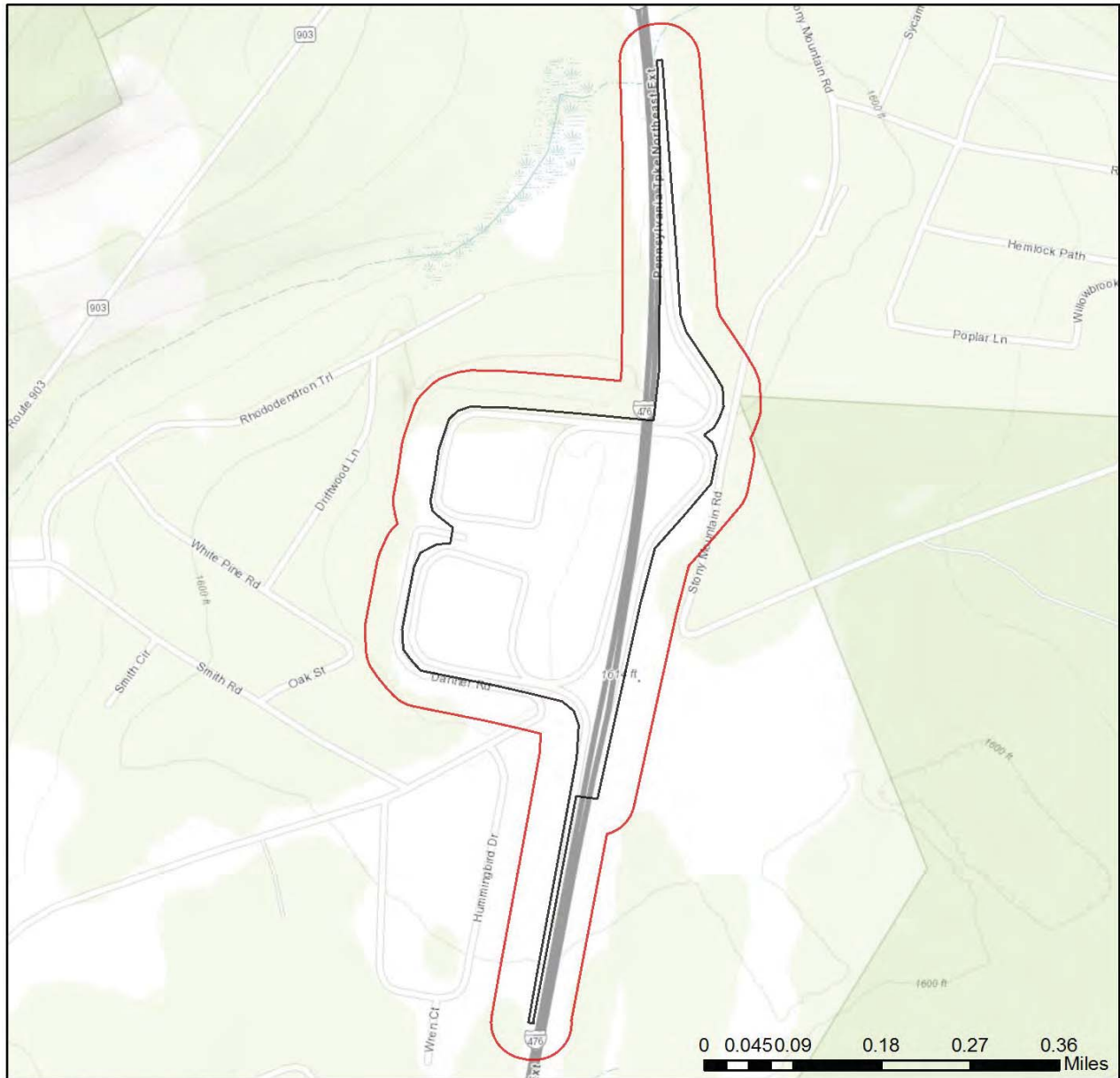
- Project Boundary
- Buffered Project Boundary

Service Layer Credits: Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community
Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community



Appendix T - RFP# 19-10480-8386

PA Turnpike I.T.S. Project - Hickory Run Service Plaza



- Project Boundary
- Buffered Project Boundary

Service Layer Credits: Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community
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3. AGENCY COMMENTS

Regardless of whether a DEP permit is necessary for this proposed project, any potential impacts to threatened and endangered species and/or special concern species and resources must be resolved with the appropriate jurisdictional agency. In some cases, a permit or authorization from the jurisdictional agency may be needed if adverse impacts to these species and habitats cannot be avoided.

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PA Game Commission

RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Department of Conservation and Natural Resources

RESPONSE:

Further review of this project is necessary to resolve the potential impact(s). Please send project information to this agency for review (see WHAT TO SEND).

DCNR Species: (Note: The Pennsylvania Conservation Explorer tool is a primary screening tool, and a desktop review may reveal more or fewer species than what is listed below. After desktop review, if a botanical survey is required by DCNR, we recommend the DCNR Botanical Survey Protocols, available here: <https://conservationexplorer.dcnr.pa.gov/content/survey-protocols>)

Scientific Name	Common Name	Current Status	Proposed Status	Survey Window
Carex polymorpha	Variable Sedge	Endangered	Threatened	Fruits June - early August

PA Fish and Boat Commission

RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

U.S. Fish and Wildlife Service

RESPONSE:

No impacts to **federally** listed or proposed species are anticipated. Therefore, no further consultation/coordination under the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq. is required. Because no take of federally listed species is anticipated, none is authorized. This response does not reflect potential Fish and Wildlife Service concerns under the Fish and Wildlife Coordination Act or other authorities.

* Special Concern Species or Resource - Plant or animal species classified as rare, tentatively undetermined or candidate as well as other taxa of conservation concern, significant natural communities, special concern populations (plants or animals) and unique geologic features.

** Sensitive Species - Species identified by the jurisdictional agency as collectible, having economic value, or being susceptible to decline as a result of visitation.

WHAT TO SEND TO JURISDICTIONAL AGENCIES

If project information was requested by one or more of the agencies above, upload* or email* the following information to the agency(s). Instructions for uploading project materials can be found [here](#). This option provides the applicant with the convenience of sending project materials to a single location accessible to all three state agencies. Alternatively, applicants may email or mail their project materials (see AGENCY CONTACT INFORMATION).

***Note:** U.S.Fish and Wildlife Service requires applicants to mail project materials to the USFWS PA field office (see AGENCY CONTACT INFORMATION). USFWS will not accept project materials submitted electronically (by upload or email).

Check-list of Minimum Materials to be submitted:

___ Project narrative with a description of the overall project, the work to be performed, current physical characteristics of the site and acreage to be impacted.

___ A map with the project boundary and/or a basic site plan (particularly showing the relationship of the project to the physical features such as wetlands, streams, ponds, rock outcrops, etc.)

In addition to the materials listed above, USFWS REQUIRES the following

___ **SIGNED** copy of a Final Project Environmental Review Receipt

The inclusion of the following information may expedite the review process.

___ Color photos keyed to the basic site plan (i.e. showing on the site plan where and in what direction each photo was taken and the date of the photos)

___ Information about the presence and location of wetlands in the project area, and how this was determined (e.g., by a qualified wetlands biologist), if wetlands are present in the project area, provide project plans showing the location of all project features, as well as wetlands and streams.

4. DEP INFORMATION

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For a list of species known to occur in the county where your project is located, please see the species lists by county found on the PA Natural Heritage Program (PNHP) home page (www.naturalheritage.state.pa.us). Also note that the PNDI Environmental Review Tool only contains information about species occurrences that have actually been reported to the PNHP.

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Bureau of Forestry, Ecological Services Section
400 Market Street, PO Box 8552
Harrisburg, PA 17105-8552
Email: RA-HeritageReview@pa.gov

U.S. Fish and Wildlife Service

Pennsylvania Field Office
Endangered Species Section
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NO Faxes Please

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Division of Environmental Services
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Bureau of Wildlife Habitat Management
Division of Environmental Planning and Habitat Protection
2001 Elmerton Avenue, Harrisburg, PA 17110-9797
Email: RA-PGC_PNDI@pa.gov
NO Faxes Please

7. PROJECT CONTACT INFORMATION

Name: Kristen N. Sommers
Company/Business Name: A.D. Marble
Address: 200 Renaissance Boulevard Suite 260
City, State, Zip: King of Prussia, PA 19406
Phone: (484) 533-2546 Fax: (484) 533-2599
Email: ksommers@admarble.com

8. CERTIFICATION

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Kristen N. Sommers
applicant/project proponent signature

4/25/19
date



BUREAU OF FORESTRY

April 17, 2019

PNDI Number: 681976
Version: Final_1; 4/16/19

Sharon Yates
A.D. Marble
2200 Renaissance Blvd
Suite 260
King of Prussia, PA 19406
Email: environmental@admarble.com (hard copy will not follow)

Re: PA Turnpike I.T.S. Project - Hickory Run Service Plaza
Penn Forest Township, Carbon County, PA

Dear Sharon Yates,

Thank you for the submission of the Pennsylvania Natural Diversity Inventory (PNDI) Environmental Review Receipt Number **681976**. PA Department of Conservation and Natural Resources screened this project for potential impacts to species and resources under DCNR's responsibility, which includes plants, terrestrial invertebrates, natural communities, and geologic features only.

No Impact Anticipated

PNDI records indicate species or resources under DCNR's jurisdiction are located in the vicinity of this project. However, based on the information you submitted concerning the project scope of work, limits of the study area, and our detailed resource information, DCNR has determined that no impact is likely. No further coordination with our agency is needed for this project.

This response represents the most up-to-date review of the PNDI data files and is valid for two (2) years only. If project plans change or more information on listed or proposed species becomes available, our determination may be reconsidered. Should the proposed work continue beyond the period covered by this letter and a permit has not been acquired, please resubmit the project to this agency as an "Update" (including an updated PNDI receipt, project narrative, description of project changes and accurate map). As a reminder, this finding applies to potential impacts under DCNR's jurisdiction only. Visit the PNHP website for directions on contacting the Commonwealth's other resource agencies for environmental review.

Should you have any questions or concerns, please contact Megan Pulver, Ecological Information Specialist, by phone (717-705-2819) or via email (c-mpulver@pa.gov).

Sincerely

A handwritten signature in black ink that reads "Greg Podniesinski". The signature is written in a cursive style and is contained within a light gray rectangular box.

Greg Podniesinski, Section Chief
Natural Heritage Section

conserve sustain enjoy

P.O. Box 8552, Harrisburg, PA 17015-8552 717-787-3444 (fax) 717-772-0271

PROGRAMMATIC AGREEMENT
BETWEEN
THE PENNSYLVANIA TURNPIKE COMMISSION AND
THE PENNSYLVANIA HISTORICAL AND MUSEUM COMMISSION BUREAU FOR HISTORIC PRESERVATION
REGARDING
THE PENNSYLVANIA TURNPIKE CAPITAL PLAN

WHEREAS, the Pennsylvania Historical and Museum Commission is an independent agency established pursuant to the History Code, 37 Pa.C.S. §§ 101-906, and vested with the primary duty of conserving and preserving architecturally and historically significant sites and structures; and

WHEREAS, the Pennsylvania Turnpike Commission (PTC) is an independent agency established pursuant to the Pennsylvania Turnpike Commission Act, 36 P.S. §§ 652a-652q with the power and duty to operate and maintain the Pennsylvania Turnpike System; and

WHEREAS, the PTC developed the Pennsylvania Turnpike Capital Plan, (hereinafter, "the Project"), to reconstruct and improve portions of the PA Turnpike Mainline (S.R. 0076 and S.R. 0276) and the Northeast Extension (S.R. 0476) between 2013 and 2033, including any extensions of time until the project is complete; and

WHEREAS, the PTC and Pennsylvania Historical and Museum Commission, Bureau for Historic Preservation ("PHMC") have consulted in accordance with the Pennsylvania History Code, 37 Pa.C.S. §§ 101-906; and

WHEREAS, the PTC and PHMC have agreed that the various activities of the Project, such as but not limited to construction, reconstruction, design, preservation, etc., should be considered together and not as separate projects; and

WHEREAS, the PTC, in consultation with the PHMC, determined that a historic resource survey and National Register eligibility determination for the PA Turnpike Mainline and the Northeast Extension would provide the basis for assessing the National Register of Historic Places ("NRHP") eligibility of these resources; and

WHEREAS, the PTC completed a historic resource survey and determination of NRHP eligibility of the 579.4 km (360.0 mi) PA Turnpike Mainline from the Ohio border to the New Jersey border and for the 177.0 km (110.0 mi) Northeast Extension from the Mainline to Clarks Summit, which is titled *Historic Resource Survey and Determination of Eligibility, Pennsylvania Turnpike Main Line and Northeast Extension* ([Kuncio *et.al.* 2005] Environmental Review Number 1999-1130-042) (Survey Report), incorporated herein by reference; and

WHEREAS, the Survey Report evaluated all properties within the Turnpike right-of-way and identified the Pennsylvania Main Line Historic District ("Historic District") as eligible for inclusion in the NRHP; and

WHEREAS, the Historic District included a NRHP boundary, with a listing of contributing and noncontributing historic properties, that is defined as the existing Mainline Turnpike right-of-way (at the

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time of survey), including the original, abandoned sections at Laurel Hill Tunnel and the Rays Hill and Sideling Hill Tunnels, and excluding the Laurel Hill, Rays Hill, and Sideling Hill bypasses and any PTC- owned parcel not adjacent to the Mainline; and

WHEREAS, the PHMC concurred with the NRHP eligibility determinations and integrity standards for the Historic District and its component Historic Properties, and the other findings of the Survey Report; and

WHEREAS, the PHMC concurred that the Survey Report should be used as a basis for determining future adverse effects on the Historic District, its contributing historic properties, and on the individually eligible historic properties on the PA Turnpike Main Line and the Northeast Extension caused by the Project; and

WHEREAS, the PTC, in consultation with the PHMC, has determined that the Project will have an adverse effect on the Historic District; and

WHEREAS, the PTC and PHMC have concurred that this Programmatic Agreement (PA) does not provide for mitigation of the adverse affect to any individually eligible Historic Property, as identified in the Survey Report, the service plazas, NRHP eligible archaeological resources, or future right-of-way acquisitions that may affect other eligible or listed historic resources.

WHEREAS, the PTC and PHMC have concurred that this (PA) will mitigate the adverse effect of the Project on all other portions of the Historic District; and

WHEREAS, if applicable under federal obligations the PHMC has agreed to communicate with other state and federal agencies whose future undertakings may adversely affect said historic properties, that upon the completion of the PA, the adverse effect to the applicable portions of the Historic District has been mitigated; and

NOW, THEREFORE, the PTC and the PHMC agree that the following stipulations will be implemented in order to mitigate the adverse effect on said historic properties.

STIPULATIONS

The PTC shall ensure that the following stipulations are carried out:

1) Historic Properties

- A. Due to the long-term nature of this complex Project, portions of which will be the responsibility of the PTC and portions of which will be the responsibility of HMSHost who has leased the Service Plazas, PTC and PHMC have concurred that several agreement documents and/or amendments to this document may be necessary. Mitigation of adverse effects to the individually eligible resources listed above will be provided for under separate agreements or amendments to this PA.
- B. Within one year of the effective date of this Agreement, the PTC will provide funding to the PHMC for an Education and Communications Coordinator (ECC) position. This position will be a professional (Historic Preservation Specialist), five-year limited term position within the PHMC Bureau for Historic Preservation. The total, not-to-exceed amount for the ECC position is \$500,000.00 dollars. The PTC will provide reasonable travel and training costs for the position, which shall be included in the total not-to-exceed amount. The ECC position will entail job duties as described in the Job Description, which is attached hereto as

Appendix A and incorporated herein by reference, and will include the development of a PA Turnpike Virtual Museum website. The website will be a permanent PHMC educational website. The form and content of the Virtual Museum website will be determined through consultation between the PTC, PHMC, and, if applicable under federal obligation, with any other applicable party.

- C. The PTC will continue to encourage the service plaza lease holder HMSHost to consult with the PHMC to mitigate the adverse effect to the Historic District through loss of the service plazas.
- D. When a Project activity will impact an individually eligible resource, the PTC, in consultation with the PHMC, and if applicable under federal obligation with identified consulting parties and the public, may consider design modifications that would avoid or minimize the Project's impacts on these properties. If the individually eligible historic property cannot be avoided, the PTC will ensure that a mitigation plan and agreement is developed in consultation with the PHMC, and if applicable under federal obligation, with identified consulting parties.
- E. When a Project activity extends beyond the NRHP boundary of the Historic District or the right-of-way of the Northeast Extension, the PTC shall complete historic property investigations in consultation with PHMC, for those areas outside the NRHP boundary or right-of-way. The need for additional historic property investigations may be determined on an individual project basis. Where additional investigations are determined necessary by the PTC, the PTC shall ensure that a qualified entity, as defined below under Administrative Conditions paragraph C "Personnel Qualifications", will undertake the work. The PTC shall consult with the PHMC, and if applicable under federal obligation, with identified consulting parties, and the public. The historic properties identified in the investigation will be evaluated in order for the PTC to recommend NR eligibility in consultation with the PHMC. If it is determined that any historic resource is eligible for listing on the NRHP, the PTC, in consultation with the PHMC, and if applicable under federal obligation, with identified consulting parties, and the public, may consider design modifications that would avoid or minimize the Project's impacts on these properties. If individual eligible historic properties cannot be avoided, the PTC will ensure that a mitigation plan and agreement will be developed in consultation with the PHMC, and if applicable under federal obligation, with identified consulting parties.

2) Archaeological Properties

- A. When a Project activity extends beyond the NRHP boundary of the Historic District or the right-of-way of the Northeast Extension, the PTC shall complete archaeological investigations, in consultation with PHMC, for those areas outside the boundary or right-of-way. The need for additional archaeological investigations may be determined on an individual project basis.
- B. Where additional investigations are determined necessary, the PTC shall ensure that a qualified entity, as defined below under Administrative Conditions paragraph C, "Personnel Qualifications", will undertake the work. The PTC shall consult with the PHMC, and if applicable under federal obligation, with identified consulting parties and the public.
- C. The archaeological sites identified in the investigation will be evaluated in a manner that meets the BHP Guidelines for Archaeological Survey (2008) in order for the PTC to recommend NR eligibility in consultation with the PHMC. If it is determined that any archaeological site is eligible for listing on the NRHP, the PTC, in consultation with the PHMC and, if applicable under federal obligation with identified consulting parties and the public, may consider design modifications that would avoid or minimize the Project's impacts on these properties. If eligible sites cannot be avoided, the PTC shall ensure that a mitigation

plan and agreement will be developed in consultation with the PHMC, and, if applicable under federal obligation, with identified consulting parties.

ADMINISTRATIVE CONDITIONS

A. Re-Evaluation of the PA Turnpike Main Line Historic District

Because the PTC has the goal of reconstructing the entire PA Turnpike Mainline during the ensuing 20 years, the attributes that qualify the Historic District for NRHP eligibility will be adversely affected. Consequently, periodic re-evaluation of the Historic District will be needed to maintain a current updated status for the benefit of other projects that may impact the resource. The PTC shall, within 1 year of full execution of this PA, update the impacts of the Project on the Historic District to date and provide said update to PHMC (Project Update). A Project Update shall be provided by the PTC every five years thereafter until Project completion. The Project Update should include a map of the turnpike system identifying the locations of the updates as well as descriptive information, including photos when applicable, on how the changes have impacted the Historic District's contributing features. This information will be used to update PHMC-BHP files and to provide sufficient information for a re-evaluation of the eligibility of the Historic District. PHMC shall re-evaluate the eligibility of the Historic District based on cumulative impacts within 30 days of receipt of the Project Update. PHMC will use the integrity standards developed in the Survey Report to determine which major sections of the Historic District no longer contribute. The major sections are: Carlisle to Irwin, Philadelphia (Eastern) Extension (Carlisle to Valley Forge), Delaware River Extension, Western Extension, and the Northeast Extension. Their status as contributing or non-contributing will be changed accordingly in PHMC files. The PTC and PHMC will take the necessary steps to revise the overall Historic District's NRHP boundary as needed after each re-evaluation.

B. Late Discovery

In the event of unanticipated discoveries of historic properties or archaeological sites during the implementation of activities under the Project, work shall be suspended in the area of the discovery as deemed appropriate and necessary by PTC and the PTC shall consult with the PHMC within twenty-four (24) hours of the discovery or as soon as practicable. The parties will have an opportunity to participate in a meeting, on location, within seventy-two (72) hours of the initial notification by the PTC. PTC and PHMC will consult to discuss and ultimately determine through consultation the appropriate treatment for the discovery within the 72 hour notification period.

C. Personnel Qualifications

All investigations carried out pursuant to this PA will be undertaken by or under the direct supervision of a person or persons meeting at a minimum the *Secretary of the Interiors Professional Standards and Guidelines for Archaeology and Historic Preservation* (48 FR 44738-9).

D. Amendments

Either the PTC or PHMC may propose that this (PA) be amended. Any suggested changes, corrections, or additions to this PA shall be in writing in the form of a letter from either party to the other setting forth the proposed change, correction, or addition. Proposed changes, corrections, or additions shall be approved by mutual agreement of the parties and signed by the parties hereto. In addition, said letter shall provide that the terms and conditions not addressed through the amendment remain in full force and effect. Said letter shall become an amendment to this (PA). If such a request for amendment is made, the other party shall respond within thirty (30) days or deemed denied.

E. Review of Implementation

The PTC and PHMC shall review the (PA) every five years from the date of full execution to determine whether revisions are needed. If revisions are needed, the PTC and PHMC shall consult to make such revisions in accordance with Section D above.

F. Sunsetting/Duration

If the mitigation measures set forth in this (PA) have not been implemented within twenty years from execution of this PA, the PA shall be null and void. In such event, the PTC shall so notify the PHMC if it desires to continue with the undertaking and shall reinstate review of the Project.

G. Termination

1. If the PTC determines that it cannot implement the terms of this PA, or if the PHMC determines and documents that the PA is not being properly implemented, said party may request the other party to reinstate consultation, within thirty (30) days of notification, to discuss alternatives to termination.
2. If parties are unable to reach an amicable resolution regarding alternatives to termination within the thirty (30) day period, the PA shall terminate.

H. Effective Date

1. This Agreement shall become effective as of the date the last signing party has affixed his/her signature.

Signature page immediately following

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Execution of this PA by the PTC and the PHMC and implementation of its terms are evidence that the PTC has taken into account or will take into account the effects of the Project on historic resources.

ATTEST:

PENNSYLVANIA TURNPIKE COMMISSION

By: _____
Ann Louise Edmunds Date
Asst. Secretary-Treasurer

By: _____
William K. Lieberman Date
Chairman

PENNSYLVANIA HISTORICAL AND MUSEUM COMMISSION

By: _____
James Vaughn Date
Executive Director, State Historic Preservation Officer

Approved as to Form and Legality:

By: _____
Tammi Snyder-Queen Date
Chief Counsel, PHMC

By: _____
Doreen McCall Date
Chief Counsel, PTC

By: _____
Deputy Attorney General Date
Office of Attorney General

Comptroller

By: _____
Date



February 17, 2017

Mark P. Compton
Chief Executive Officer
Pennsylvania Turnpike Commission
P.O. Box 67676
Harrisburg, PA 17106-7676

RE: First Amendment to the Programmatic Agreement Regarding the Pennsylvania Turnpike Capital Plan

Dear Mr. Compton:

In accordance with Administrative Condition D of the Programmatic Agreement (PA) between the Pennsylvania Turnpike Commission (PTC) and the Pennsylvania Historical and Museum Commission (PHMC), the parties seek to amend the PA as follows (this Amendment):

Stipulations paragraph (1)(B) is replaced in its entirety by the following:

Within one year of the effective date of this Agreement, the PTC will provide funding to the PHMC for an Education and Communications Coordinator (ECC) position. This position will be a professional (Historic Preservation Specialist) limited term position within the PHMC State Historic Preservation Office. The total amount to be paid by PTC for the ECC position shall not exceed \$500,000.00 dollars, less all payments previously paid by PTC. The PTC will provide reasonable travel and training costs for the position, which will be included in the not-to-exceed amount. PHMC shall have ten years from the date of complete execution of this amendment to expend the funds. The ECC position will entail job duties as described in the Job Description, which is attached hereto as Appendix A and incorporated herein by reference. The PHMC and the ECC shall work with the PTC to form a public outreach team that shall mutually develop and implement public outreach to support this mitigation. The public outreach will focus on the history and significance of the Pennsylvania Turnpike (Turnpike) with regards to the history of Pennsylvania, transportation history overall, and the local history of the communities along the Turnpike. This mitigation may include but not be limited to blog or social media postings and local exhibits or lectures in association with local partner organizations. At least one activity developed by the public outreach team will take place in association with the Turnpike anniversary during a year chosen by the parties. All public outreach activities, both in scope as well as content, shall be mutually agreed upon by the public outreach team. A mutually acceptable public outreach plan will be developed before July 31, 2017 and implemented by the year agreed upon by the parties.

Administrative Condition A is replaced in its entirety by the following:

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Because the PTC has the goal of reconstructing the entire Turnpike Mainline during the ensuing 20 years, the attributes that qualify the Historic District for NRHP eligibility will be adversely affected. Consequently, periodic reevaluation of the Historic District will be needed to maintain a current updated status for the benefit of other projects that may impact the resource. The PTC shall, within eight years of execution of this Amendment, update the impacts of the Project on the Historic District to date and provide said update to PHMC (Project Update). A Project Update shall be provided by the PTC every ten years thereafter until Project completion. [The Project Update should include a map of the Turnpike system identifying the locations of the updates as well as descriptive information, including photos, when applicable, on how the changes have impacted the Historic District's contributing features.] This information will be used to update PHMC's files and to provide sufficient information for a reevaluation of the eligibility of the Historic District. PHMC shall reevaluate the eligibility of the Historic District based on cumulative impacts within 30 days of receipt of the Project Update. PHMC will use the integrity standards developed in the Survey Report to determine which major sections of the Historic District no longer contribute. The major sections are: Carlisle to Irwin, Philadelphia (Eastern) Extension (Carlisle to Valley Forge), Delaware River Extension, Western Extension, and the Northeast Extension. Their status as contributing or non-contributing will be changed accordingly in PHMC's files. [The PTC and PHMC will take the necessary steps to revise the overall Historic District's NRHP boundary as needed after each reevaluation.]

The terms and conditions of the PA not addressed through this First Amendment to the Programmatic Agreement remain in full force and effect. Upon full execution, this First Amendment to the Programmatic Agreement shall become an amendment to the PA. This amendment shall be effective as of the date PTC executes it.

Sincerely,



Andrea MacDonald
Deputy State Historic Preservation Officer
Pennsylvania Historical and Museum Commission

Please acknowledge PTC's consent to this Amendment by signing below:

Pennsylvania Turnpike Commission

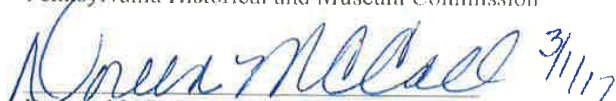
By: 
William K. Lieberman
Vice Chairman

Date: 3/1/17

APPROVED AS TO FORM AND LEGALITY:


2-17-17

Samara Gomez
Chief Counsel [Date]
Pennsylvania Historical and Museum Commission


3/11/17

Doreen McCall
Chief Counsel [Date]
Pennsylvania Turnpike Commission


3/17/17

Deputy Attorney General [Date]
Office of Attorney General